ATHLETES DOING IT FOR THEMSELVES:

SELF-COACHING EXPERIENCES OF NEW ZEALAND OLYMPIANS

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ABSTRACT

Self-coaching in sport (athletes coaching themselves) is a little understood concept. It has not been researched or written about by academics to any great extent although practitioners from both the sport and business environs have made some contribution to the literature. The basic premise of self-coaching is the fact that the athlete is responsible for all activities oriented towards their performance enhancement and goal achievement. This does not mean that the athlete achieves this without any outside influence or assistance. Rather, it is their decision when, or if, to call on a coach, mentor, technical advisor or observer for input. This research aims to provide a clear definition of self-coaching, to identify reasons why athletes self-coach and characteristics/qualities of self-coached athletes and to propose strategies and clearly delineated steps or guidelines for self-coaching.

Data for the research was collected using self-administered questionnaires and semi-structured interviews. Forty-five of the 97 members of the New Zealand 1996 Summer Olympic Games team and 36 New Zealand Summer Olympic Games medal winners from the 1956 to the 1996 Olympics participated in the study. Data was analysed using SPSS, concept mapping techniques and document analysis.

The most common reasons identified by New Zealand athletes for self-coaching was lack of available, certified, sport-specific or elite level coaches. Other reasons included incompatibility with the coach, financial considerations and inconvenience of traditional coaching. The characteristics/qualities identified by these athletes as most essential to effective self-coaching were discipline, self-criticism, motivation, self-belief, confidence, determination and honesty.

The self-coaching strategies employed by these athletes include learning from mistakes made, using a training diary, using a training partner, talking with other (elite) athletes and coaches, gathering outside feedback and using structured programmes. The proposed six step process incorporated steps such as vision and goal setting, identification of strengths and weaknesses, development of a plan followed by monitoring, revision and evaluation of the plan.

Academics and practitioners can assist athletes to improve their sporting performance by further exploring the concept of self-coaching with a view to providing positive, useful suggestions which can be implemented by athletes who find themselves in a self-coaching situation. Practical outcomes that have been suggested here focus on useful strategies, procedures for self-coached athletes to implement a training programme and action plans including modification to coach education schemes and a Self-Coaching Cycle.

Future research opportunities, which could be of benefit to both New Zealand athletes and those from other countries, include such topics as:

- sport-specific case studies to identify for which sports self-coaching is most appropriate and which are interested in implementing self-coaching processes
- case studies on team, individual and dyadic athletes to identify which benefit most from self-coaching and which are interested in implementing self-coaching processes
- replication of this study using Paralympic athletes as the sample population
- coaches' thoughts and perceptions of the self-coaching process
- extension of the Self-Coaching Cycle to integrate more specific self-coaching techniques and tools for coaches and athletes.

Self-coaching is a new and exciting concept which will develop and no doubt be recognised as a legitimate coaching process.

DEFINITION OF TERMS

The Hillary Commission (the HC or the Commission) - responsible for improving the wellbeing of New Zealanders through sport, fitness and leisure

The New Zealand Sports Foundation (the NZSF, the Foundation or the Sports Foundation) - committed to sporting excellence by assisting athletes to succeed in high performance/elite (international) sport

The New Zealand Olympic Committee (the NZOC) - responsible for promoting the Olympic ideal and organising Olympic and Commonwealth Games contingents

Coaching New Zealand (CNZ) - responsible for encouraging, promoting, educating and certifying coaches

National Sport Organisations (NSOs) - responsible for sport-specific development, organisation and delivery

Regional Sport Trusts (RSTs) - preferred delivery agents for Hillary Commission programmes which educate, support and promote sport in the community

High performance athletes - term used to refer to athletes competing at the international level who are ranked among the best in the world or who have the potential to be, also known as elite level athletes

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CHAPTER ONE

INTRODUCTION

The day you take complete responsibility for yourself, the day you stop making excuses,

is the day you start to the top (anonymous).

1.1   OVERVIEW

This work is researched and premised on the basis that many New Zealand Olympic athletes, whom are coaching themselves do not have access to research-based, self-coaching guidelines. Some of these athletes do not have access to trained coaches, others surpass the technical and/or tactical knowledge of their coaches while others prefer to self-coach. Furthermore, there are a number of 'new sports' that do not have trained coaches or appropriate coaching material. Currently, the importance and prevalence of self-coaching within New Zealand sport is not recognised or considered for enhancement of Olympic athletes' sporting experiences.

For the purposes of this research, my working definition of self-coaching has developed as, "a proactive concept where the athlete facilitates their self-development of performance-enhancing and achievement-oriented activities either in the absence of a coach, mentor, technical advisor or observer or with one of these having input only when, or if, required".[1]

Over the years there have been several significant examples where athletes have trained and/or competed in the absence of a coach. In the 1930 Empire Games the swimmers and the

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[1] This working definition is an extension of McConnell's (1995) definition and also evolved from reading the available literature and from discussions with elite athletes, coaches, sport administrators and academic activities independent of a formal or professional coach or mentor" (p.3).

athletics team were sent to the Games without their coaches. Gladys Pidgeon, the first New Zealand woman to represent New Zealand in an Empire Games said, "We athletes and swimmers had to do what our coaches back in New Zealand had told us" (cited in Potter, 1998, p.A7). However, nowhere has the absence of guidance and assistance been given greater significance than in the 1948 Olympic Games team manager's report to the New Zealand Olympic and Empire Games Association. It was strongly recommended that future teams have a second team official to act as coach, trainer or masseur (Palenski and Maddaford, 1983). In spite of this recommendation, New Zealand athletes at the 1952 Olympic Games once again competed without their coaches in attendance. One such athlete was Yvette Williams who qualified for the long jump finals while her coach awaited her results back in Auckland. It was not until the 1958 Empire Games and the 1960 Olympic Games that swimming and athletics management recognised the need for coach support. This was as a result of the public pressure exerted for master-coach Arthur Lydiard, who trained athletics' team members Murray Halberg and Peter Snell, to be included in the 1960 Olympic team (Palenski and Maddaford, 1983). Until this time, evidence suggests that athletes attending the Olympic and Empire Games competitions were their own coaches. Today many athletes still train and compete in New Zealand and overseas in the absence of a coach. This is not an ideal situation and coaching assistance, either formal coaching or self-coaching, is a necessity.

1.2   BACKGROUND TO THE RESEARCH

The genesis of this study stemmed from my ongoing involvement in sport as a player, coach, elite team manager, administrator, volunteer and now sport management and coaching academic. Recollection of self-coaching experiences, in this context, goes back to primary school days when I provided a fellow classmate with advice on how to serve a volleyball over

the net. The teacher allowed three hits to manipulate the serve over the net and I led my team-members' group strategy towards achieving this goal. Even at high school the teacher who coached us did not have much volleyball knowledge or enthusiasm. Consequently, the organisation and leadership of early morning practices, three days a week, were left to me.

I completed a Level Three Coaching Association of Canada certification in volleyball while in high school. My journey progressively expanded through the playing, coaching and administrative ranks at university, provincial, national and international levels. A coaching career developed, covering provincial representative teams with the Ontario and Alberta Volleyball Associations and later the "under 19" National Girls Volleyball team with Volleyball New Zealand. I also undertook various national and international administrative roles within national sports organisations including volleyball, soccer and squash in Canada and within volleyball and university sport in New Zealand.

Reflection upon my personal coaching roles (especially when I was coaching the New Zealand "under 19" National Girls Volleyball team) and those of other coaches, brought the realisation that when coached from afar, athletes had to be much more self-dependent and self-responsible. While coaching the "under 19" team I realised that for major portions of the year the team members were not under my direction. We trained together perhaps four times a year for a period of three days at a time. When players returned to their home clubs some had proficient coaches, others were under the tutelage of inexperienced coaches while some did not have a coach at all. As their national coach it was my responsibility to offer them advice on how they could train in my absence and prepare for the times we were together as a team. This necessarily raised critical consideration of ways that athletes could develop their

own coaching techniques and be responsible for the management of their own skill development and performance outcomes in the absence of a coach.

My academic post in a sport management and coaching programme (where I developed research skills through supervision of student research) led to the awareness of a dearth of coaching literature within sport research, especially in the area of self-coaching. I realised that this research would not only impact elite athletes but other stakeholders such as those organisations responsible for high performance sport in New Zealand (and even the revenue-paying public). Those organisations include the Hillary Commission, the New Zealand Sports Foundation (contracted by the Commission to run high performance sport), Coaching New Zealand and the individual national sport organisations. Perhaps this thesis-research would be of interest to them.

Sport is integral to New Zealand society. This is evident in writer Witi Ihimaera's reflection on the role that high performance sport has played in New Zealand's history of success. "Our sports achievers are important to us....Sport has been our past...it will also be our future" (New Zealand Sports Foundation, 1997, p.13). Political, social and cultural ramifications must also be recognised. In the harsh times of inadequate funding for social, health and cultural services, government accountability is expected when large amounts of financial and human resources are dedicated to sport, and high performance sport specifically. The self-coaching management framework and guidelines developed from this study may help the stakeholders to be aware of and understand the level of self-coaching which exists and the implications for elite sports people and New Zealand as a nation.

Most existing research discussed coaching at the American college or high school levels (Chelladurai and Saleh, 1978; Erle, 1981; Garland and Barry, 1987), coaching models such as those propounded by experts in the study-field (Côté, Salmela, Trudel, Baria and Russell 1995; Fairs, 1987; Worthington, 1980), and athletes' perceptions of coaches or coaches' perceptions of themselves (Anshel, 1990; Chelladurai, 1984; Chelladurai and Carron, 1983; Chelladurai and Saleh, 1978; Gainter, 1976; Garland and Barry, 1987). The lack of information in the area compelled urgent intensive research both to meet my own inquiries as a coach and academic, and the inquiries of interested stakeholders and those sports persons, especially elite athletes, who wished to self-coach.

The needs for my thesis-research were extensive:

- it was perceived that many athletes were currently coaching themselves
- there were no guidelines for athletes who coached themselves
- some new sports did not have trained coaches or coaching material
- some athletes did not have access to qualified coaches
- some athletes had surpassed the technical and/or tactical knowledge of their coaches
- some athletes may have preferred to self-coach
- to raise the awareness of the self-coaching status to New Zealand's high performance sport stakeholders
- to put forth recommendations to these stakeholders.

It would be beneficial for academics, practitioners and those organisations governing high performance sport in New Zealand to be cognisant of the concept of self-coaching and its reality if it were in fact established that elite athletes self-coached. The exploration of the concept of self-coaching and the establishment of sound business-like guidelines for self-coached athletes to manage and control their personal destinies could also be of benefit.

1.3 RATIONALE OF THE RESEARCH

For most athletes the need to be responsible for their own coaching arises at some stage in their sporting career. Although a large number of both developing and elite athletes are engaged in self-coaching, an important and prevalent dimension of coaching, the term is seldom discussed or recognised as a legitimate coaching process. Existing literature does not provide an operational definition or description of self-coaching or guidelines to enhance it, but does intimate that some athletes undergo a process whereby they are responsible for their own sporting destiny. In New Zealand many athletes do not have access to the guidance of a full-time coach and therefore self-coach, not by choice but by default. Per head of population, New Zealand has enjoyed a substantial number of high-achieving athletes on the national and international scene (New Zealand Sports Foundation, 1997). Many of these athletes have reached elevated levels of sporting success despite lack of ready access to appropriate coaching guidance. However, this lack of guidance for 'self-coachers' can be problematic.

The expressed need for such guidance comes from the sportsmen and women themselves. Elite New Zealand beach-volleyball players are still coaching themselves. For example, New Zealand beach-volleyball representatives, Craig Seuseu and Tom Eade in the final months of their 2000 Olympics qualification campaign, self-coached by default due to the lack of a suitable coach and the lack of finances. Their quest was described as a "do it yourself" campaign (Maddaford, 1999) following the same footsteps as the self-coached 1996 New Zealand beach-volleyball Olympians, brothers Glen and Reid Hamilton.

This situation also occurs overseas. Cammy Ciarelli, an American beach-volleyball player, began her playing experience with 15 years of indoor volleyball, from school level to the European professional leagues. However, she explained that, "beach volleyball was a

completely different game. On the beach, one must be a back row specialist, a setter, a hitter and a blocker. Not only that, players must be their own coach" (Ciarelli, 1993, p.43).

Ciarelli designed her own weight training and technical skill development plan by using her past experience and intuition. After an unsuccessful season she asked herself, "What had gone wrong?" Ciarelli reviewed her past season's training regime to re-surface with a more professional and business-like approach. Her next season's results were noticeably better. She attributed this to having a year's experience under her belt and a plan of action (Ciarelli, 1993).

Steve Newman, a track athlete and former editor of Canada's national coaching magazine *Coaching Review*, also self-coached. His first real experience with self-coaching began in his youth when he did whatever he thought was required to get in shape for racing. Newman finished ninth out of a field of 3000 in a cross-town race and attributed his success to his self-designed and unwritten training programme executed four times a week.

> I think I always believed I needed a coach - an assumption to which I still adhere - only now I have found my best coach to be myself. I don't pretend that this situation is entirely desirable, but I've come to recognise that I coach myself as well or better than the large majority of coaches I see (Newman, 1986, p.46).

Another 'self-coacher' was David Whitaker an English field hockey international and two time Olympian for Great Britain. He turned to self-coaching when he became disenchanted with the dictatorial style of the coaching he received. He resented being told what to do by a technically less proficient coach who:

didn't truly understand what was happening on the field. At best, I took what I heard from

the coaches, fitted it with what I knew truly happened on the field and found a synthesis.

At worst, I listened to what they said, realised it didn't fit with what the reality was and did

my own thing (cited in Durcan and Oates, 1994, p.101).

The Victorian Institute of Sport (VIS) in Melbourne, Australia, aims to avoid this kind of scenario. Their philosophy is based on developing self-sufficient athletes who are empowered by their coaches. They believe self-sufficient athletes, similar to self-coached athletes, should demonstrate:

- independence and be able to maintain standards, even when remote from the VIS, their coach and home environment
- discipline and commitment
- the ability to accept responsibility for their development and performance
- the ability to plan and evaluate and to work in close conjunction with coach(es)
- the ability to do something for themselves (Spence, 1995).

Athletes must be taught self-coaching techniques to help them become self-sufficient and fulfil such philosophies as the VIS exhorts. However, most athletes are not being taught ways to become self-sufficient or self-coached.

There is some uncertainty about the actual need for a coach. John Reid, former New Zealand cricket test captain, and highly rated International Cricket Council match referee and national cricket administrator, pondered the need for a coach when the national cricket team went on tour.

How much coaching is really done on a tour? You do need someone to take the fielding

sessions, but a manager with past cricketing experience and who has man-management

skills, as mostly happens in other countries, could help the captain. The vice-captain should be responsible for the nets and fielding sessions, with assistance from other senior players. That would be a complete team effort ("Don't rush on cricket coach", 1995, Section 2, p.3).

The national cricket players have enough experience to coach themselves and in a situation such as Reid mentioned there is not much that a coach will change over the period involved.

World boardsailing champion and 1996 and 2000 Olympian Aaron McIntosh also provided some evidence to ponder the need for a coach. When he and Bruce Kendall, a 1992 and 1996 Olympian and past world champion, competed at the 1994 World Championships, the coaches in attendance could not understand how they trained and competed on so little funding and without a coach. McIntosh said, "I kind of felt sorry for those coaches because they had to go back to their federations who are pouring hundreds of thousands of dollars into them and tell them that they were beaten by a couple of Kiwis doing it all on next to nothing" (Johnstone, 1998, p.18). There are many examples of the Kiwi 'do-it-yourself' attitude involving athletes coaching themselves.

In the four-year period from June 1995 to January 2000 just 13 articles were amassed from a selection of New Zealand newspapers that related to athletes who were either training or competing in the absence of a coach or that implied self-coaching. Each article was reviewed to identify statements about self-coaching. For example, Philippa Baker who paired with Brenda Lawson, uttered the following post-mortem regarding their misfortune in the 2000 metre double scull finals at the 1996 Olympics. "We've done a lot on our own and I don't know if people realise how difficult it was winning those world championships" (Niumata, 1996, Atlanta '96, p.III). Another example of self-coaching was highlighted by the

experiences of Jayson Herbert, a 17-year-old who attended the first ever World Laser Radial Youth Regatta. He was a "self-taught dinghy sailor after his stepfather introduced him to yachting through keel boats" (McFadden, 1997, p.C1). Coxless pairs rowers, David Schaper and Toni Dunlop, also trained without their coach Steve Gunn. Speaking of the situation Schaper said:

> We were a bit concerned initially because we had a couple of months by ourselves. It was really hard because we had never trained like that before. You normally always have your coach there to motivate you and check that you are making technical changes. We started off being a bit lazy and then realised that we had to get hard on ourselves....It has been a big learning curve on taking the responsibility for our own training (Sanders, 1997, p.B5).

Like Schaper and Dunlop, Shelley Stephens who played on the Asian and Australian satellite tennis circuits minus her coach also found it to be an eye opener and hard to be on her own.

> It certainly was an experience,...the qualifying tournaments were the hardest. They were high pressure and seeing that I was there by myself made it a lot harder mentally. When you are by yourself and you get on a bit of a losing streak, which happened at one stage, it's hard not to dwell on it and your confidence levels can take a bit of a dive. But I know how to cope with that now and as a result I'm a lot more mentally tough ("Learning quickly on satellite circuit", 1998, p.50).

Similarly, distance runner Nyla Carroll did not have a local coach. She linked up with Australian national coach, Dick Telford, with her training schedule being faxed to her and discussions held over the telephone. This was not considered an ideal situation but one that she had to overcome ("Nyla Carroll engages", 1997).

Such reports pointed to a trend suggesting that there were many situations when an athlete fulfilled the usual roles of a coach out of necessity and not necessarily by choice. Guidelines - be they in the form of a coach or a book, animate or inanimate advice - were not entirely indispensable.

These examples indicated that the proposed thesis-research focus had been neglected even though a wide variety of research on coaching as a study-field had been completed (Chelladurai and Carron, 1978 and 1983; Evered and Selman, 1989; Loy, McPherson and Kenyon, 1978). This research variety was heavily weighted towards coaching per se, without emphasis on how athletes could coach themselves. A preliminary survey of the literature also pointed to a dearth of empirical data on the practice or competition patterns of elite athletes who self-coached.

1.4 RESEARCH QUESTIONS

The need to understand and develop a concept of self-coaching generated the following tentative research questions:

- Do elite athletes self-coach?
- How is self-coaching carried out by elite athletes?
- What do elite athletes do in the absence of a coach?
- Where do they learn skills to self-coach?
- Do they follow a process when self-coaching?
- What are the roles and characteristics of elite athletes who coach themselves?

These research questions, in turn, led to an expanded list generated to guide this research where the literature had not provided insight.

- Was self-coaching considered as the process of athletes having responsibility for their own development, performance enhancement, achievement and organisation at the elite level of sport without the full-time guidance of a coach?
- How did elite athletes define the concept of self-coaching?
- Did elite athletes follow a set process in coaching themselves?
- If so, what was this process?
- Did elite athletes implement strategies to enhance self-coaching?
- If so, what strategies did they implement?
- What are the characteristics/qualities that can be directly associated with, or need to be present in elite athletes, for successful implementation of self-coaching techniques?
- What are reasons or identifiable situations that push elite athletes into self-coaching?
- What are the essential determinants of a successful self-coaching programme?

Most of the duties generally perceived to be fulfilled by a coach could be fulfilled by a self-coached athlete. In the absence of a formal coach, it would then be useful to investigate how these tasks were to be accomplished by a self-coached athlete. An understanding of the concept of self-coaching could assist elite athletes. The practices of self-coaching and the conceptual perceptions held by the participants themselves could also be valuable in clarifying whether or not a process was instigated, and if it were, how it would be perceived and how it could be implemented. Principles or themes could then form the basis of guidelines to enhance the management and efficacy of self-coaching at the elite level.

After the establishment of the key areas for research investigation, an in-depth literature review was undertaken, identifying two points. Firstly, that the concept of self-coaching in the sporting environment was not well documented or understood. Secondly, that this concept in relation to elite athletes had not been reported and possibly examined in detail.

This led to a further refinement of the initial research questions. The focus became: "Did elite athletes self-coach and if so, what did they do?" From this information a definition of and guidelines for self-coaching at the elite level could be developed. This then became the research focus and underpinned the selection of an appropriate research process.

1.5   RESEARCH PRINCIPLES

The philosophical and theoretical approach to this research study is one commonly discussed in the literature. Denzin and Lincoln (1998) nicely summarised the approach in stating that the constructivist paradigm assumes a relativist ontology (there are multiple realities), a subjectivist epistemology (researcher and research subjects create understandings), and a naturalistic (in the appropriate natural world) set of methodological procedures. The research process was based on these understandings.

Multiple methods such as semi-structured interviews, self-administered questionnaires and concept mapping collected the data to address the research questions. Most research employs some form of documentary method of data collection such as a review of literature and documents. This research made use of books and newspaper, magazine and journal articles, and annual reports (Robson, 1996; Sarantakos, 1993).

With the emphasis on athletes coaching themselves, semi-structured interviews were conducted with New Zealand 1996 Summer Olympic Games team members (13) and past New Zealand Olympic Games medal winners (23). These individuals also participated in the concept mapping exercise. Self-administered questionnaires were completed by 45 of the 97 1996 Olympians.

The following factors contributed to the selection of New Zealand Olympians for this research study.

- Most studies into sport teams and athletes had been completed in North America at the club, high school or university level. Virtually no research had been completed on elite level athletes and especially on those residing in New Zealand.
- The Olympic Games team would comprise the greatest number and variety of elite level athletes in New Zealand.
- The intensity of training and elite level of these Olympic athletes would provide the necessary experience for research on self-coaching.
- The results of the research could be beneficial to such organisations as the NZOC, the Hillary Commission, Coaching New Zealand, the New Zealand Sports Foundation and national sport organisations as well as current and prospective Olympic team members.

1.6   STRUCTURE OF THE RESEARCH

This first chapter introduces the research topic and explains its conception. The literature review in Chapters Two and Three, seeks to examine the past and current research on coaching and self-coaching. It presents a summary of coaching definitions, characteristics and process models along with definitions, rationale, characteristics, strategies, processes and coaching styles associated with self-coaching. The literature review justifies the need for research on self-coaching of elite athletes and on the development of specific steps, strategies and guidelines to aid elite athletes in their sporting endeavours.

Chapter Four details the research process utilised to gain insight to the research questions. The results phase, Chapter Five, outlines a 'master' set of categories that emerged from the questionnaire and interviews. These categories, explicated via concept mapping, are then discussed in detail. This leads to Chapters Six and Seven in which the results are considered

and discussed. These chapters contain definitions of both formal coaching and self-coaching and then explore in more detail different aspects of self-coaching. These aspects include all that self-coached athletes should be aware of: reasons to self-coach, characteristics/qualities of self-coached athletes, strategies to enhance self-coaching, steps to guide a self-coached athlete and a model to enhance self-coaching. A plan of action to make self-coaching a realistic option for the elite athlete is outlined in Chapter Eight. The practical considerations for athletes engaged in self-coaching and recommendations for stakeholders and future researchers to explore also feature in this chapter.

1.7   SUMMARY AND REVIEW

In New Zealand today there appear to be many athletes who assume the role of a coach and coach themselves. Currently no research-based procedural guidelines exist to assist them. Many New Zealand athletes may find themselves in a self-coaching situation and application of the findings from this thesis-research may assist them to achieve their sporting goals. This study examines the efficacy of self-coaching, the perceptions of the self-coaching process and the perspectives of the process as perceived and practiced by the Olympic competitors.

The implications for self-coached athletes were identified in this chapter. In addition, the research process was explained in some detail in order that the study could be replicated and be of greater interest and benefit to New Zealand athletes, stakeholders, coaches and sport administrators alike, and potentially, athletes world-wide.

Given this overview, the study now ponders the literature on coaching and elite athletes coaching themselves, and sets the scene for research along the lines placed in focus in the thesis proposition. The initial broad research question was initially framed as: "How is self-

coaching implemented by elite athletes?" In the next two chapters an examination of the literature investigates the research topic as a generalisation of the research focus: "that elite New Zealand athletes self-coach".

CHAPTER TWO

COACHING: AN OVERVIEW

2.1   OVERVIEW

Sport coaching has emerged as a profession in the twentieth century. However, coaching athletes is not a new concept, rather coaching or training was apparent during ancient sporting contests. When the Greeks first participated in the ancient Olympic Games over 3000 years ago, they recognised the need for effective and efficient coaching for the competitors. In Greece trainers not coaches were the individuals who informally prepared runners, archers and gymnasts. In Rome as well it was the trainers who instructed athletes in physical skills and gladiatorial contests.

In the 1500s the word "coach" referred to a particular kind of carriage and in the 1840s it pertained to a private tutor who prepared a student for an examination. Not until the 1880s was the word "coach" used in terms of a sport coach and a substitute for the term "trainer". The verb "to coach" was derived to mean to get a valued person from where they were, to where they wanted to be (Evered and Selman, 1989).

Sport researchers today still recognise the coach as a significant aspect in the success of an athlete. Hawes (1987) and Maetozo (1981) identified the coach as the most important factor affecting an athlete's attempt to achieve ultimate levels of efficiency in their sporting life. Dr. Ruben Acosta, President of the Federation Internationale de Volley-ball (FIVB), supported this when he wrote, "Whatever the country, language, traditions, culture or philosophy, the level of sport depends directly and primarily upon the value of those men and women who

are in charge of the preparation, training, and coaching of athletes" (Federation Internationale de Volley-Ball, 1989, p.xi).

Other sport researchers felt that the coach, although important, was only present to guide and assist the athlete in achieving their sporting goals, thereby allowing the athlete to develop and take responsibility for their sporting outcomes. Whitmore (1996) summarised this in the following statement, "Coaching is unlocking a person's [sic] potential to maximise their own performance. It is helping them to learn rather than teaching them" (p.8). Socrates espoused this same philosophy some 2000 years ago.

Chelladurai (1978), the most widely read authority in the area of athlete-coach relationships and leadership, stated that the sport field is basically the only field of endeavour where individuals voluntarily place themselves in the authority of an individual known as the coach.

> Their reliance on the coach's expertise and motivational techniques to achieve their
> personal goal is truly remarkable. Despite this unique situation in athletics, research on the
> phenomena has unfortunately been sparse and sporadic... (Chelladurai, 1978, p.329).

This literature review will identify the variety of definitions, characteristics and processes thought to be involved in coaching.

2.2   DEFINITIONS OF COACHING

There are a variety of definitions of coaching, which have evolved over time and which more than likely will continue to evolve. These definitions outline a variety of roles and qualities

that a coach should encompass. Some of these definitions will be discussed to review their evolutions, similarities, differences and progressions.

Coaching is considered to be a helping or service profession (Baldock, 1993; Fairs, 1987; Martens, 1987; Pyke, 1991). The coach is expected to add value to the athlete's development - personal or professional (Baldock, 1993) by helping the individual to identify, analyse and solve sporting related and sometimes personal problems (Fairs, 1987). Coaching helps the athlete develop and grow into a responsible individual. It involves the giving and receiving of respect, trust and appreciation for the mutual efforts exerted. It involves helping individuals to achieve their potential at whatever level of performance.

Evered and Selman (1989), Gummerson (1992), Howe (1986), Martens (1987), Parsloe (1995) and Whitmore (1996) identified coaching as a pedagogical process where techniques, skills, knowledge and attitudes were imparted to change or enhance an athlete's performance. It was perceived to be a structured process providing experiences, feedback and methods appropriate to the athlete's abilities and aspirations.

Definitions of coaching by Durcan and Oates (1994), Evered and Selman (1989), Peters and Austin, cited in Martens (1987) and Whitmore (1996) collectively comprise some of the characteristics I perceive are integral to self-coaching. For example, these authorities believed there was a committed partnership between the coach and the athlete, in which athletes were empowered and treated as full-scale contributors to their performance enhancement. Coaching enabled athletes to recognise something about their performance not previously seen or unable to be seen. Through the identification of performance issues, coaches were able to help athletes exceed previous levels of performance. Furthermore, through coaching,

athletes were taught how to recognise and/or analyse their own performance. They were also involved in the decision-making that led toward their desired outcome. Consequently, the performance awareness and knowledge of the athlete was raised and they had a greater understanding of the relationship between "performance" and "desired outcome". This enabled them to take on a greater responsibility.

Others defined a coach rather than the process of coaching. Tchesnokov, cited in the FIVB Coaches Manual 1, (1989) and Worthington (1978) defined a coach as someone who was responsible for improving and preparing athletes' skills. A definitive overview of what a coach actually did to prepare athletes to perform was not provided but their brief definitions were similar to those of others noted above.

Definitions of coaching include facilitating athletes' change, an understanding of pedagogical and andragogical principles, effective instructional strategies and athlete empowerment. Despite the variety of definitions and the wide and encompassing functions of coaching, there is agreement that coaching is about improving the performance of the athlete.

The above-mentioned definitions of Baldock (1993), Douge and Hastie (1993), Durcan and Oates (1994), Evered and Selman (1989), Peters and Austin, cited in Martens (1987), Parsloe (1995) and Whitmore (1996) link most closely to the emphasis of this research, that is, how elite athletes might coach themselves. Key phrases such as, "by virtue of developed skills of observation and explanation" (Baldock, 1993, p.5), "unlocking a person's [sic] potential to maximise their own performance" (Whitmore, 1996, p.8), "encourages them to stand up to responsibility and continued achievement" (Peters and Austin, cited in Martens, 1987, p.34), "to raise the awareness of the performer and get him [sic] to take responsibility for what he

[sic] is doing" (Wigson, cited in Durcan and Oates, 1994, p.99) and "discovering actions that enable and empower people to contribute more fully" (Evered and Selman, 1989, p.16) all stress the impetus for this research as they are strung together into a coherent, cohesive and unified statement of the situation.

2.3   CHARACTERISTICS OF COACHING

Many completed studies identified the leadership skills of coaches involved with athletes from a school-to-university level and in some cases the elite level (Chelladurai, 1978; Chelladurai and Carron, 1978; Erle, 1981; Garland and Barry, 1988). Although many characteristics or features of coaching have been written about in the literature to date, no research has identified the exact characteristics or developed a prioritised list of qualities that a coach should possess when coaching an athlete from the developmental to the elite level.

The notion of coaching constituting instructing, re-instructing, teaching training and educating was exhorted by Docheff (1990), Douge and Hastie (1993), Gummerson (1993), Holmes (1980), Martens (1987) and Knight, cited in The Earl of Lonsdale and Parker (1930). Anshel (1990) suggested that a coach could be portrayed as a leader, a follower and a teacher. In discussing the teacher's role he equated the teacher to an educator.

> Part of the educational process in sport is to teach athletes to think independently of the coach's directions and to respond creatively to unanticipated actions of their opponents. Effective coaches are knowledgeable about the skills and strategies of their sport. But just as important is that they are able to communicate this knowledge to their players so that it can be applied proficiently in competitive situations (Anshel, 1990, p.164).

In contrast to this, Knight, cited in The Earl of Lonsdale and Parker (1930), wrote that actual "physical" teaching was only 60% of a coach's job. He reasoned that at the elite level, athletes required more organisational and motivational support than technical support as skill execution had been refined at this point.

Hart, cited in Thomas (1993), also supported this.

> I found the Colts needed much more coaching in the classical sense of instruction in the technical requirements of their individual positions than did the All Blacks who, in most cases, had mastered technique. At All Black level, the key coaching roles are those of organiser and motivator - to ensure that the 15 individuals function as a team and that they are in the optimum frame of mind individually and collectively when they go on the field (p.174).

Communication, frequent feedback, prompts and responsiveness were supported as roles of a coach by Alderman (1976), Gibbs, cited in Butcher (1994), Campbell (1990), Douge and Hastie (1993), Evered and Selman (1989), Holmes (1980), Martens (1987 and 1997) and Hart, cited in Thomas (1993). Bompa, cited in Woodman (1993), supported the need for clear communication in his argument that athletes should be trained theoretically as well as practically. By passing theoretical knowledge on to athletes, their development and motivation would be accelerated, suggesting that this makes them more "coachable". "It makes communication between athlete and coach much more effective because the athletes have a better understanding of why they are being asked to do certain things in training" (Woodman, 1993, p.4).

Motivation, inspiration, enthusiasm, encouragement, support and maintenance of team spirit were qualities put forth by Gibbs, cited in Butcher (1994), Laing, cited in Butcher (1994), Gummerson (1992), Holmes (1980), Martens (1987), Daly and Parkin, cited in Pyke (1991) Knight, cited in The Earl of Lonsdale and Parker (1930) and Hart, cited in Thomas (1993). Motivation is an important skill for the coach to possess. Ogilvie and Tutko (1966) estimated it to be 50-90% of the coach's responsibility. Stampfl, cited in Singer (1972), supported this. "The coach's job is 20% technical and 80% inspirational..." (p.363). Percival (1971) stated that:

> Athletes even at the upper levels of competition, apparently want a coach who can inspire when the need arises but most of the time they don't need to be exhorted; they need, so they said, to be calmed down and given cool direction, a feeling of poise (p.314).

Lyle (1986) highlighted additional qualities, which included commitment, regular involvement and empathy - also supported by Evered and Selman (1989), Holmes (1980) and Daly and Parkin, cited in Pyke (1991). Other important characteristics were those of organisation and management, noted by Gibbs, cited in Butcher (1994), Douge and Hastie (1993), Gummerson (1992), Martens (1987) and Hart, cited in Thomas (1993).

In addition to those already mentioned, Evered and Selman (1989) listed the following as essential characteristics of coaching: partnership or relationship; commitment and vision; compassion, generosity, acceptance and non-judgement; honour and respect; practice, preparation and repetition; willingness and receptiveness; sensitivity to team and individuals; and desire to improve and achieve. Douge and Hastie (1993) also included high levels of questioning, clarifying the disciplines that appear to be important especially when related to self-coaching.

Martens (1987) added to Evered and Selman's list of disciplines, supported by Gummerson (1992) and Hart, cited in Thomas (1993): confidence, goal setting and evaluation. Other attributes added by Gummerson (1992) were to be friendly, knowledgeable, safety conscious, mature, willing, respectful and fair.

To this Daly and Parkin, cited in Pyke (1991), included intelligence, drive, persistence, patience, conscientiousness, confidence, emotional stability, decisiveness, character, preparation, sense of humour and appropriate role model. Holmes (1980) built on these to include the value of sportsmanship or fair play, flexibility, sympathy, guidance, friendship and rapport building.

Duncan Laing, who coached New Zealand's double 1996 Olympic gold medallist swimmer Danyon Loader and other New Zealand swimming greats, identified several qualities that he felt were important to be a successful coach. Laing, cited in Butcher (1994), believed that like an athlete, a coach must be born with certain skills. A coach should be a fairly good motivator, a good storyteller, a father figure but not get too emotionally attached, inspirational, dedicated, able to develop interesting programmes to avoid repetition that youth dislikes and able to nurse athletes along until they could think for themselves. Leigh Gibbs, coach of the New Zealand Silver Ferns Netball team from 1994 - 1996, also believed that coaches should develop a personal relationship with the athletes but not become too close to avoid loss of effectiveness (Butcher, 1994).

There has been much written about the "ideal" or "modern" coach. Holmes (1980) completed a study of New Zealand secondary school first fifteen and senior club rugby teams, female secondary school first eleven and male senior club field hockey players and senior "A" and

second grade netball clubs, to determine the characteristics of a good coach and those of an ideal coach. He found that there was very little difference between the features of an ideal coach from sport to sport. The actual sport-specific techniques might be different, but skills such as communication, organisation and management which were required to create the best teaching and learning environment, were much the same. Contrary to this, Daly and Parkin, cited in Pyke (1991), believed that ideal coaching behaviour varied from sport to sport, age group to age group, between ability levels and between male and female athletes. Knight, cited in The Earl of Lonsdale and Parker (1930), expressed that the ideal coach must be adept in the skill and theory of the game. Knight felt there was more probability that a skill would be imparted to the athlete if the coach had well-refined skills. It was necessary for the coach to also have theoretical knowledge and teaching abilities of the specific sport. The ideal coach is one who can combine all these assets to a very high degree.

In addition to what has already been stated, Knight further believed that the ideal coach must possess a high degree of patience and, also supported by Daly and Parkin, cited in Pyke (1991), keenness and a love of the game. Singer (1972) found the ideal coach to be outgoing, dominating, stable, highly intelligent, conscientious, realistic, practical, confidently secure, self-sufficient and able to make decisions. Overall, it is considered that coaches must be effective communicators and motivators even if they possess a selection of other ideal coaching skills.

Pyke (1991) believed that a modern coach should be responsible for personal and career development of the athlete as well as development in the sport arena, which is similar to the thoughts of Baldock (1993) and of professional sport organisations today. There is a predominant belief that a balanced perspective could prepare the athlete for life beyond sport.

The occupation of a coach is generally agreed to be that of helping an athlete to achieve their best performance possible. This includes preparing an athlete for competition, which encompasses teaching basic skills, to planning and implementing long-term training programmes, to provision of technical and tactical advice during training or competition. A basic understanding of the sport and the requirements within it are believed by some to be required by an elite coach. It is believed that at the elite level the coach should hold a more supportive motivational role. Gone are the days when coaches gained respect for their playing skills. Today coaches are expected to have technical and tactical ability, communication and management skills and of course, people skills. The coach fulfils a variety of roles and responsibilities such as that of a technical expert, psychologist, educator, counsellor, friend, leader, motivator, mentor and facilitator.

Athletes at the developmental level require more social support, training, instruction and feedback. At the elite level the athlete may have reached a point where the coach can no longer provide the technical guidance required to help them improve technically. What the coach can provide is constructive feedback, social support, motivation, psychological support and reflection.

2.4   PROCESS MODELS OF COACHING

The term "coaching process" signifies a series of inter-related steps that a coach takes in determining, planning and implementing a coaching action or response which aids in solving an athlete's problems or preparation for competition (Côté et al., 1995b; Fairs, 1987). This process requires the coach to assess the situation, apply coaching principles and evaluate the progress to determine whether or not the intended results will be achieved. Lyle (1986) has

written that the coaching process was created by the athletes' needs and the circumstances of the coach-athlete relationship and not by the qualities of the coach.

Four notable descriptors of the coaching process recognised by Côté et al. (1995), Fairs (1987), Lyle (1986) and Woodman (1993) are: dynamic, organised, systematic and deliberate. The process is advantageous to both the athlete and the coach, providing an enhanced quality of coaching, improved communication, a means of evaluation, positive thinking, planned action and player participation. When coaching as a process is studied analytically, coaches are seen to be either change-agents (teachers) or evaluative feedback-providers who monitor and evaluate the quality, rate and level of work output.

Whitmore (1996) believed that one of the most important aspects of the coaching process was goal setting, that is, knowing what was to be achieved over the short and long-term. This closely relates to the above descriptors and process definitions as goal setting is part of the cyclical process involving assessment through to reassessment as goals are set for evaluation purposes.

Côté et al. (1995) completed a study to address the lack of conceptual views on the coaching process. They devised the first sport-specific conceptual framework to assist in the development of research on the coaching process. They interviewed 17 Canadian expert high performance gymnastic coaches, eight of whom worked with female athletes and the remaining with male athletes. This study was undertaken as according to Thomas (1992) no theoretical framework had existed to explain the most significant factors in the coaching process. The establishment of a Coaching Model (Figure 2.1 below) was perceived to clarify the disorganised information that had been in existence over the past 20 years relating to

coaching, sport psychology or sport pedagogy. Coaching models provide a framework for coaches to visualise what they actually do. "The components of a coaching model have been defined to describe a coach's work from the coach's perspectives" (Côté et al., 1995, p.9).
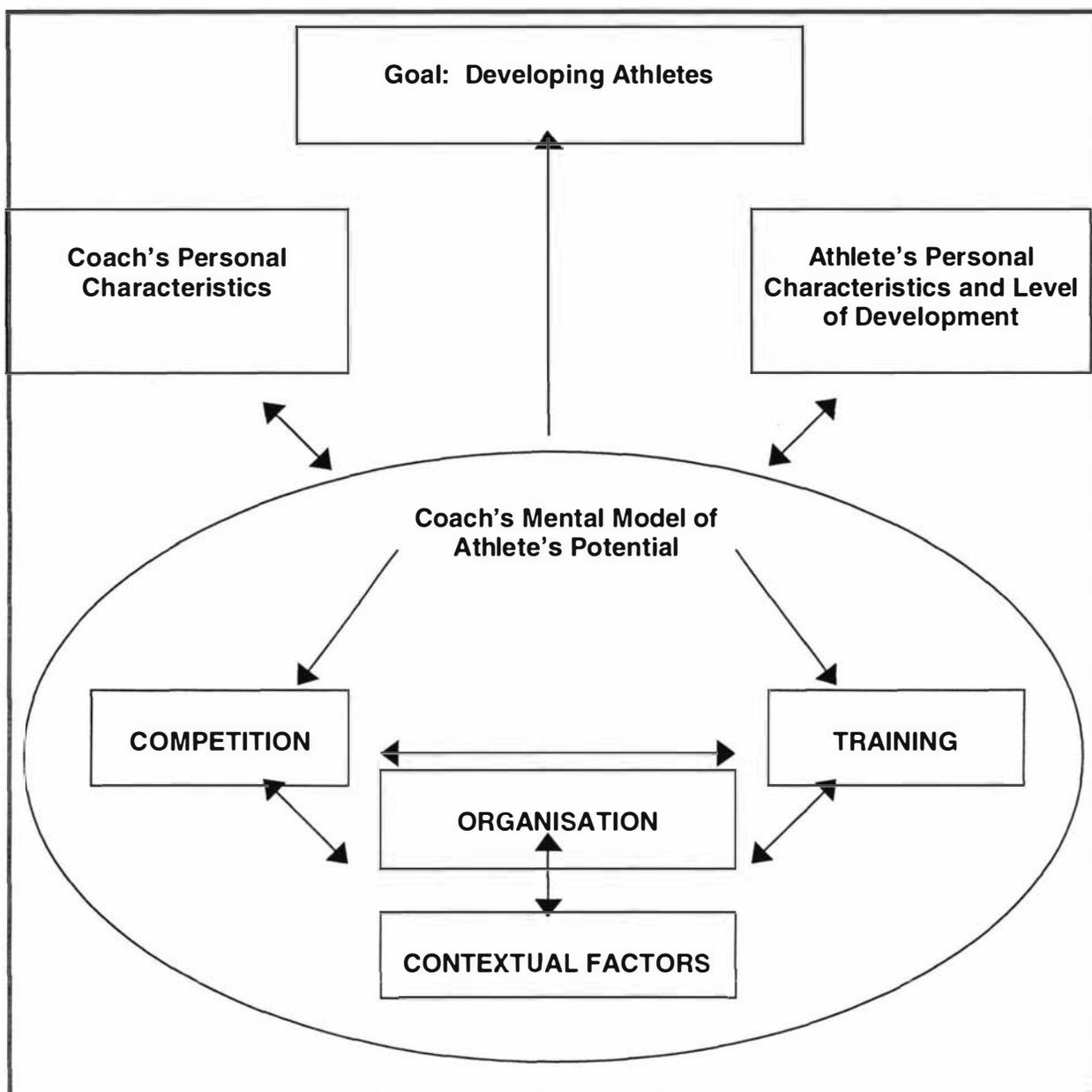
Figure 2.1: The Coaching Model (Côté et al., 1995, p.10)

Central to Côté et al.'s coaching model is the competition, training and organisation components that they have defined as the "coaching process". Other components of the

model include the coach's personal characteristics, the athlete's personal characteristics and the contextual factors. An understanding of coaching knowledge is derived from the following heuristic model:

Worthington's 1980 coaching model (Figure 2.2 below) has four cyclical aspects including knowing, organising, observing and coaching. Knowing involves understanding the athlete's skill level, motivation to train, strengths, weaknesses and desires. Organising includes preparation for practices, games, team meetings and any other team-oriented function. Observing is knowing when to comment, watch, analyse and interact with the athlete or team. In this coaching process constructive feedback, setting goals and teaching correct skills and techniques are included.
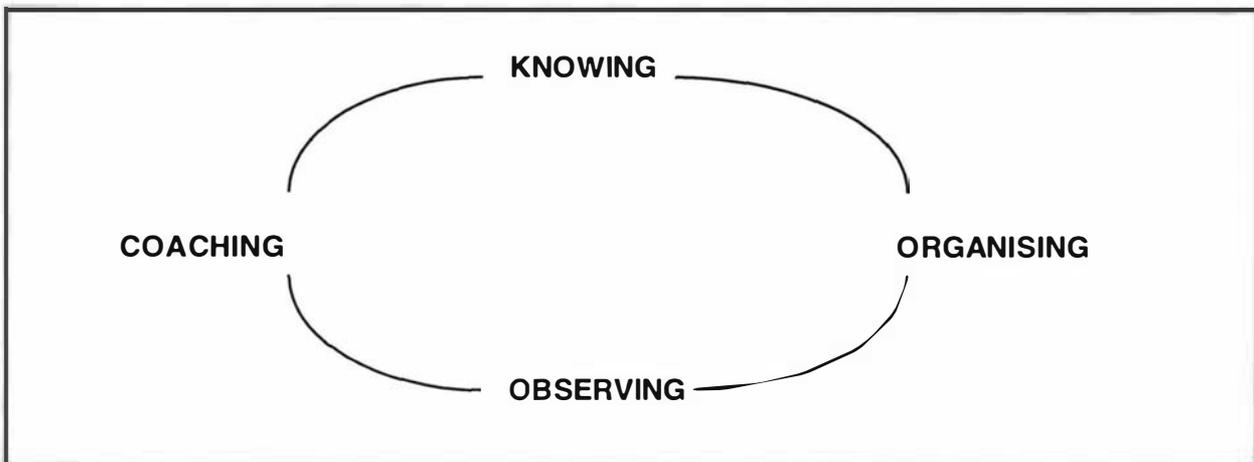
Figure 2.2: Dynamic Model of Coaching (Worthington, 1980, p.12)

Fairs (1987) developed an action research coaching model (Figure 2.3 below) which comprised a series of systematic, sequential and inter-related actions in which coaches observed, analysed, evaluated and modified their coaching process, adapting to the needs of the athletes as required. Pertinent elements of a practice were observed and the information gained was analysed to formulate plans and goals for implementation and evaluation. The

process was repeated, analysed and revised until the desired outcomes were realised. The coaching process involved defining and analysing problems as well as solving them.
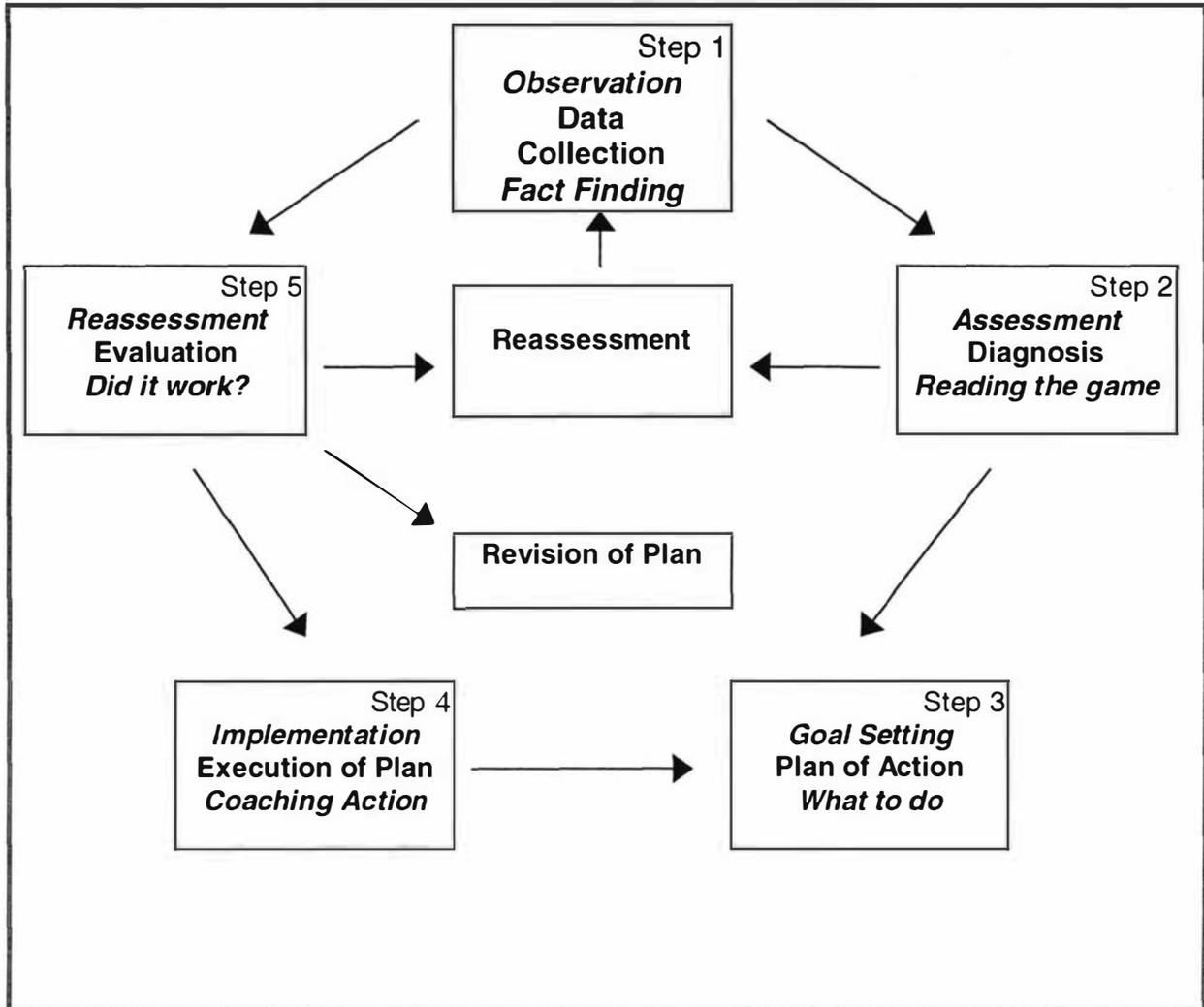
Figure 2.3: Five-Step Model of the Coaching Process (Fairs, 1987, p.19)

Durcan and Oates (1994) described the "helper coach" model known as the CALAIS Loop (Figure 2.4 below) requiring coaches to have a desire to help in the development of others, a capacity for intelligent questioning, good listening skills, non-evaluative feedback skills and a sense of pleasure when helping people solve their own problems. The CALAIS Loop comprised the six stages of:

- C   criteria setting
- A   awareness building
- L   logical analysis
- A   alternatives generation and evaluation
- I   implementation
- S   scrutiny and review.

The Loop was developed for use in a business environment where the management coach has become fashionable. Hence, the coach relies heavily on questioning and listening techniques to raise the awareness of the trainee (or athlete).

The CALAIS Loop requires the coach to fulfil a different role during each stage. In the criteria-setting stage the emphasis is on enabling the trainee (athlete) to recognise the issues for themselves instead of having these imposed on them. The coach provides guidance and assistance in helping the trainee (athlete) identify guidelines for success. In the next stage, awareness building, the coach acts as a consultant who helps the trainee (athlete) identify the positive and negative feedback received. A clear appreciation of the present performance of the individual must be recognised so a change can be acknowledged. The aim of this stage is for awareness building to be managed without the assistance of the coach. The next phase, logical analysis, requires the cause and effect of performance levels to be recognised. The coach, as an intellectual challenger, offers encouragement to push beyond the familiar and strive for the unknown or unchallenged. In the alternatives generation and evaluation phase, the coach encourages a range of alternatives to be identified and evaluated before implementation. In the implementation stage, the coach aims at not having to be present and continually providing instruction. Throughout the earlier stages the trainee (athlete) has learned to coach themselves and increased their ability to become self-aware; although, the coach is still available to monitor progress and offer instruction. In the final scrutiny and

review phase, the trainee (athlete) reflects on the progress made and the action left to pursue. The coach lets the individual (athlete) do the reflecting and is there to provide feedback if asked for, but is not directive in any way. That is, they "talk through what happened and what she [sic] learned, asking probing and reflective questions, listening and recapping and sharing her [sic] joy and anxiety and accomplishment. That is the challenge for the coach" (Durcan and Oates, 1994, p.224). This model is probably most similar to the self-coaching cycle to be developed and recommended via this research.
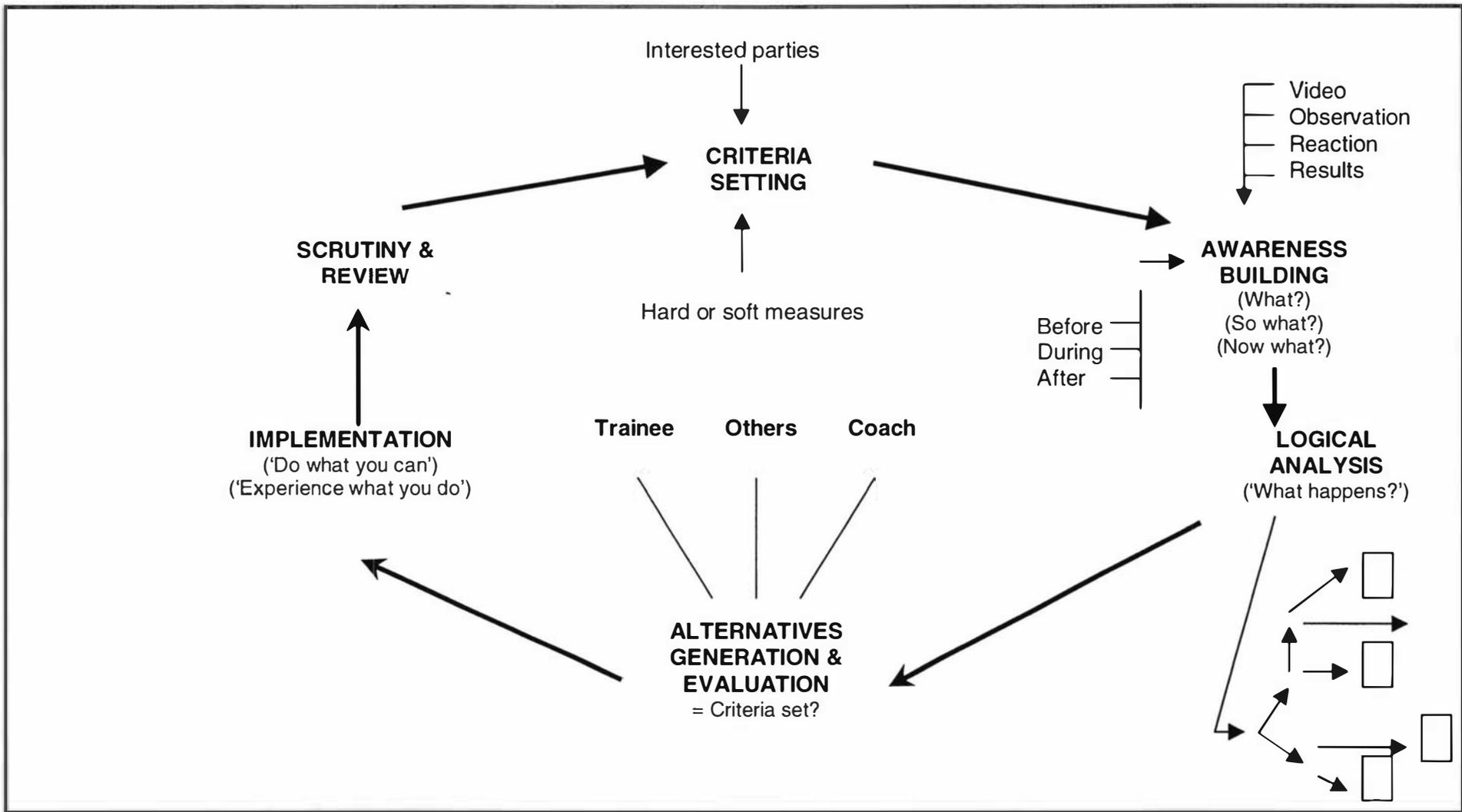
Figure 2.4: CALAIS Loop (Durcan and Oates, 1994, p.143)

2.5   SUMMARY AND REVIEW

The first section of this literature review provided an overview of the evolution of the "coach", leading to definitions of a coach and coaching. The characteristics of a coach were then discussed followed by presentation of various coaching models. The coaching models explained the processes that coaches followed when preparing and training an athlete for competition or when preparing an individual to be self-responsible with the ability to problem-solve.

Coaching involves the systematic guidance of individuals to develop the necessary knowledge, skills and attitudes to perform a skill properly. It is in essence a method of performance enhancement. It involves goal setting and goal achievement. It is about human relationships; those between the coach and the athlete.

These areas have been discussed to provide a framework to understand the role of a coach within the development of an elite athlete. It is felt that some elite athletes coach themselves therefore taking on some of these roles. It was necessary to review what a coach actually did when aiding athletes to reach sporting goals to see if these processes could be transferable or adopted by an athlete who self-coached. It is now important to investigate whether or not a self-coached athlete can adopt the qualities and roles of a coach to effect their own performance enhancement.

CHAPTER THREE

SELF-COACHING: AN OVERVIEW

I know of no more encouraging fact than the unquestionable ability of man [sic]

to elevate his life by conscious endeavor (Henry David Thoreau).

3.1   INTRODUCTION

When reviewing the literature, both academic and popular, it was difficult to find material written directly about self-coaching. That is, material which defined what self-coaching was, offered self-coaching guidelines, provided a model to be followed or supplied a list of characteristics/qualities that a self-coached athlete should possess. Kevin Hall (1997), a self-coached American Olympic yachtsman, is one of the few practitioners who has written directly about self-coaching. In his article *You Will Always Improve If You Learn To Coach Yourself*, he used the term "self-coaching" and discussed aspects of and strategies for self-coaching. He was highly supportive of self-coaching in sailing and believed that the only person who could help an individual improve in their sport was that individual.

The experiences and thoughts of Linda Leaver, an American figure skater turned coach, contrasted to those of Hall. Leaver spent the last five years of her skating career uncoached. Her coach was ill and his recovery stretched into years. She said, "There are hundreds of things I learned from that experience. It taught me to understand the principles behind skating, much more so than if I'd had someone standing there saying, 'Do this, do that'" (Leaver, cited in McKee, 1994, p.29). However, Leaver didn't believe self-coaching was conducive to great performance and wondered how much further she could have gone if her coach had been with her.

Self-coaching in sport is a little understood concept that has not been researched or written about by academics or practitioners to any great extent. Only one academic, McConnell (1995), has introduced and prepared thoughts on self-coaching. Several practitioners discuss aspects of self-coaching but do not define it or utilise the term self-coaching (Cunningham, 1986; Greenwood, 1986; Hall, 1997; Lawrence and Scheid, 1987; Newman, 1986; Whitmore, 1994). Some identify characteristics/qualities needed to self-coach, some present steps and strategies they have followed to coach themselves, while some give reasons why they self-coached. However, they do not specifically relate these to, or call these, self-coaching guidelines. In essence, the material is not well defined, explained or even validated. This chapter will draw together the ideas that are available to provide a comprehensive overview of self-coaching. Relevant information is presented from a variety of sources including the business, sport, self-help and personal development literature.

3.2   DEFINITIONS OF SELF-COACHING

Rarely is there one definition for anything and this is very true of self-coaching. There is neither a common definition in the literature studied nor one that is universally understood. I perceive self-coaching to be a concept where the athlete takes responsibility for personal development and performance outcomes through designing and charting a personal path to success.

As stated in Chapter One, my working definition of self-coaching is that it is a proactive concept where the athlete facilitated their self-development of performance-enhancing and achievement-oriented activities, either in the absence of a coach, mentor, technical advisor or observer or with either one of them rendering input only when, or if, required. McConnell (1995), whose definition provided the basis for the one above, defined self-coaching as, "the

facilitation of performance enhancing and self-fulfilling activities independent of a formal or professional coach or mentor" (p.3).

Among other authors who have acknowledged or referred to the term self-coaching, Greenwood (1986) considered self-coaching to be a means of problem-solving, that is, observing results and working out how to improve them. Cunningham (1986), in *American Rowing*, did not define the term but described how one who observed and listened to his boat [sic] would learn a great deal from it, and in effect, be self-coached. Whitmore (1994), who utilised the term self-coaching in the business, not the sport environment, described its usefulness for the practitioner in terms of helping to "clarify their needs and make their best decisions" (p.2). Stringer, cited in Whitmore (1994), also referred to self-coaching in the business sense as a "performer-centred approach, completely in line with a participative management style promoting the ethos of ownership equals commitment" (p.105).

Aside from McConnell's definition, the others do not satisfy any rigorous researcher's perception of self-coaching. Stringer's definition, however, does provide another starting point to apply to self-coaching in sport.

3.3 RATIONALE FOR SELF-COACHING

When researching the concept of self-coaching, nothing could be found in the academic literature to verify the reasons why an athlete may choose to or end up in a self-coaching situation. Some information, however, was found in popular literature.

Reinhild Möeller (1993), a German disabled athlete discussing disabled sports, indicated reasons why disabled athletes may choose to or be forced to self-coach. These reasons, fitting

for able or disable-bodied athletes included the fact that there were only a few qualified coaches working with disabled sports, most of whom were working with national teams. Also athletes may not be able to afford the time and money to live close to a national training centre or travel regularly to one of these centres.

Möeller (1993) wrote that she was able to train without a documented training programme and on her own, rather than at a national training centre, because she had studied physical education and sport science at university. She felt that she was able to train and coach herself better than any specialised coach could have done.

The financial cost of having a coach may also be a limitation for some athletes. For some sports, such as yachting and long distance running, it may be impractical to have a coach with one at all times, due to the expense involved (Hall, 1997). Hall wrote:

> Wouldn't it be great to have a coach watch every move you make, in every race? Unfortunately if you think of a "coach" as an outside observer, this is expensive and impractical. There is only one person in the world who can always be there to help you improve your sailing: you (p.22).

According to Lawrence and Scheid (1987), most of America's competitive runners did not have a coach. It would be great to have a coach watch every move you make but as Hall (1997) has observed, this is not always practical.

The amount of respect and confidence in the coach, or lack of, may also be the cause for an athlete to self-coach. Mal Tongue, a professional New Zealand golf coach, stated that to be a coach, "You have to try to stay with the level of the person [sic] you are coaching, to

maintain their respect and confidence in you. You have to work harder as it gets harder" (cited in Butcher, 1994, p.112). Coaching New Zealand agrees with this, as Chalmers (1997) stated in the Foreword of *The Principles of Sports Coaching Level Two Manual*: "As athletes strive to achieve better and better performances, the challenge for coaches is to continually improve their performance to keep up with the pace".

Research completed by Bloom (1985) on American Olympic level swimmers supported the experience of lacking respect and confidence in a coach. Bloom and a team of researchers studied the development of talent in children. The subjects of the study were concert pianists, sculptors, research mathematicians, research neurologists, swimmers from the 1968, 1972 and 1976 Olympics and international tennis champions. They examined the processes that these individuals followed to reach the highest levels of accomplishment in their fields and to fully develop their capabilities.

The swimmers felt that they were in a bind. They wanted to defer to their coach and do as they were told, but were afraid that it would not lead them anywhere. They felt there were three paths out of their dilemma: to have a parent step in, move to another coach or take over their own coaching. To overcome the loss of confidence or respect of a coach swimmer S-15 stated, "My job as a swimmer was to learn how to coach myself" (Bloom, 1985, p.163). Swimmer S-13 reported:

> He (our coach) was a nice guy but...there was something about him that made us think we could do better on our own. (So) we just kind of blocked him out a little, doing what he said but in our own way....(My success) was all on my own, I think, or at least a lot of it was because...I could (have) cared less about what he thought (p.162).

New Zealand has another situation, which may also be relevant to other countries. In some sports it is difficult for the coach to stay with or ahead of the level of the athletes, due to the lack of the availability of general or sport-specific coaching courses and the time required attending these courses. Many coaches do not have the technical or tactical ability or the time to keep up with the progress of their athletes. This is one of the possible reasons for implementation of self-coaching in New Zealand. To support this, Keith Mair - coach of New Zealand's national basketball team the Tall Blacks, during 1987-1991 and from 1994 onwards - stated, "I don't ever remember having a coach that really left an impact on me. I always felt that was wrong. But I came from a small town - Taumarunui - and a small town like that is short on expert people in a lot of areas" (cited in Butcher, 1994, p.108).

Overall, New Zealand has a shortage of expert coaches. The Coaching New Zealand database reveals that since 1995, 2803 people have completed a KiwiCoach introductory course, which was renamed to Getting Started in Coaching, with 5164 people completing it in 1998/99. During this timeframe 7310 people completed a CNZ Level One course, 1594 a Level Two course, 18 a Level Three course and 561 a Coaching Athletes with Disabilities course. In 1995/96 25 - 40 coaches attended a selection of Level Four modules and 29 attended one Level Four module in 1996/97 (J. Boyd, personal communication, 10 November 1999). The Level Three and Level Four courses are considered "expert level" courses and only 18 coaches were certified at the Level Three while coach certification is not offered for Level Four. This confirms the belief that New Zealand suffers from a lack of expert coaches.

3.4   CHARACTERISTICS/QUALITIES OF SELF-COACHING

Existing literature does not provide precise characteristics or qualities of athletes who self-coach, however by sifting through a variety of articles and research output some potentially pertinent patterns became apparent.

The most relevant research, completed by Orlick (1996), introduced the Wheel of Excellence which he termed "a working framework to guide the pursuit of excellence" (p.3). Orlick's research combined years of interviews, interactions and observations with exceptional performers including athletes, musicians, surgeons, astronauts and fighter pilots. These exceptional performers' experiences have led to the development of the Wheel of Excellence, which comprises seven critical elements of excellence: commitment, belief, full focus, positive images, mental readiness, distraction control and constructive evaluation. Commitment and belief are at the heart or the centre of the wheel and are what the other components feed from. They "encompass your overall perspective, your orientation toward excellence, your desire to excel, the way you view yourself, your capacity and the importance of your pursuit" (Orlick, 1996, p.4). New Zealand discus thrower Beatrice Faumuina, a 1996 Olympian and 1997 World Champion, supported Orlick in at least two of his elements. Faumuina, when asked what made her a good thrower, replied, "…committed to what I want to achieve. I focus hard on what I want to do, and then work hard on it. That's the secret to success" (England, 1997, p.88).

Orlick described or defined the make-up of these components. Commitment involves doing and giving of everything you can to excel or to be the best you can be without letting roadblocks defeat or slow down progress towards the end goal(s). This involves "dedication, self-discipline, passion, joy or love for what you are doing" (Orlick, 1996, p.5).

Excellence is guided and achieved through belief or self-confidence. There must be belief or self-confidence in potential, meaningfulness and capacity to attain the goal(s) set and in the people (team-mates, coaches, support staff, organisation and the like) with whom excellence is to be achieved. Belief and self-confidence are strengthened and acquired through positive and self-fulfilling actions, experience, learning from others and constructive feedback and support.

Orlick (1996) has noted focusing as the single most important mental skill to attain excellence. He equated it to, "the ability to concentrate totally on what you are doing, seeing, reading, learning, feeling, observing or experiencing while you are engaged in the activity or performance" (p.8). The next component, positive imagery, guides one's belief, focus and performance and is linked to the next component, mental readiness. Positive vibrations or feelings about yourself and your ability are gained in the positive imagery area and you need to be in a positive mental state of readiness to prepare for the ongoing learning, development and/or personal growth. Distraction control, the next component, is the ability to maintain or regain a positive attention span to the task at hand. Finally, constructive evaluation requires self-reflection and self-analysis to identify that which went well and that which requires improvement. Here, it is important that an effective assessment procedure is developed to learn, grow and act on previous experiences.

Similarly, Loehr (1995) found that the characteristics of self-coaching amounted to being flexible, responsive, strong, resilient under pressure, having disciplined thinking and imaging skills, disciplined physical acting skills and emotional response practice. "Before positive self-change occurs you must recognize the truth and, if what you see is unsatisfactory, accept total responsibility for changing it" (Loehr, 1995, p.36). To perform consistently in competition toward the upper range of the athlete's talent and skill, athletes must come face-to-face with

themselves. Honesty within the athlete's self is a necessity. "Overcoming this barrier to your competitive success demands a commitment to search out personal truth, to drop the defenses, to take a close, unblinking look at what's really there" (Loehr, 1995, p.37). This would support Hall's (1997) assertion that the athlete must be honest with themself when identifying the weaknesses that must be improved. Positive change cannot take place if the athlete does not recognise or accept their weaknesses.

Control, ownership, improvement and problem-solving are integral to becoming self-directed (Ellis, cited in Orlick, Partington and Salmela, 1982). Self-direction is also integral to self-coaching. "The way you become self-directed is first to see that it is possible and desirable to control (and direct) your behaviour, then you make a resolve in your head to control it" (Ellis, cited in Orlick, Partington and Salmela, 1982, p.37). Ellis felt that a goal would not be achieved unless self-control was developed first. The advantages of mastering self-control and self-direction were that elite athletes were then able to manage their own destinies by choosing what they wanted to do and how they wanted to do it.

Hodge, Sleivert and McKenzie (1996) implied a self-coaching quality in stating that monitoring is the athlete's job and not the coach's. Self-motivation was developed through self-monitoring and self-evaluation. They suggested that the attitude "If it's to be, it's up to me!" (p.26) led to a more responsible, committed, organised and assertive athlete. Tongue, cited in Butcher (1994), found that athletes needed a touch of arrogance and defined it as a combination of success and confidence. Bloom's (1985) study also noted self-motivation as an important quality.

A legendary runner of the 1920's, Paavo Nurmi, made the first significant breakthrough in long track running. "His great contribution was making runners aware of the importance of *discipline*

- a trait he showed in his training, his competition, and in his all-important emphasis on pace judgement in races as short as 1,500 meters" (Lawrence and Scheid, 1987, p.141). Discipline was also interpreted in Hodge et al.'s (1996) assertion, "If it's to be, it's up to me!" A self-coached athlete must possess this discipline. It is the athlete who must control the destiny as is suggested in the working definition of self-coaching.

Self-talk, another potential characteristic, is conscious or intentional thinking linked to one's concentration, stress level and self-confidence. Anthony Mosse, a New Zealand Olympic medal winning swimmer, used self-talk and said that, "I talk myself through my body, everything all the way from my toes right up to my head" (cited in Hodge et al., 1996, p.61). The ability to visualise and implement positive self-talk may be strategies for a self-coached athlete.

Proactivity is another self-coaching quality. This means taking initiative and being personally responsible to make things happen. "Proactive people are driven by values---carefully thought about, selected and internalised values" (Covey, 1989, p.72).

Covey also felt that independence was extremely important. "*Independence* is the paradigm of *I-*--*I* can do it; *I* am responsible; *I* am self-reliant; *I* can choose....Independent people can get what they want through their own effort" (Covey, 1989, p.49). Independence or empowerment imbues athletes with sufficient self-confidence, self-awareness and competence to enable them to exercise discretion and resolve issues which a coach or mentor would otherwise have handled. This independence provides greater control over an identified destiny. "People want a greater say in their own destinies and want the freedom to act according to their own judgements" (Durcan and Oates, 1994, p.8).

Brian Glencross implemented empowering strategies in his coaching (Taggart, 1991) as did David Hadfield (1994) supporting the thoughts of Durcan and Oates (1994). Glencross encouraged the athletes to contribute to how they wanted to be coached and what they wanted to practice. Hadfield's coaching philosophy was "a caring guide to athlete self discovery and empowerment" (p.19) and his philosophy centred on empowering and encouraging, even demanding the athlete to become more self-aware and self-sufficient in developing skills and enhancing performance. Both supported the idea of involving the athletes in goal setting, discipline, decision-making and self-motivation to enhance thinking and being responsible for themselves.

In Bloom's 1985 study of the development of talent in children, the swimmers described their talent as "having a feel for the water". A feel for the water meant that the swimmers had:

> an ability to know instantaneously (that is, without reflection) the body's alignment in the water at any particular moment and to correct or make adjustments to misalignment quickly, efficiently, and completely. It is the ability to know what one's limbs are doing at any moment and the ability to control them in the smallest detail (Bloom, 1985, p.175).

The swimmers explained their feel for the water as follows:

- "Timing and feel...I caught on faster and I was always fairly good at correcting my stroke (S-6)" (Bloom, 1985, p.175).
- "I remember being very aware of what I was doing in the water. I just remember finding it very enjoyable to analyse my stroke completely, to catch, and feel, and know exactly what I was doing underwater (S-17)" (Bloom, 1985, p.175).

The parents of the swimmers also described this ability:

- "She was able to take control of herself and her strokes (M of S-3)" (Bloom, 1985, p.176).
- "(My son) knew how the strokes would go. He could tell when he was doing it right and when he was doing it wrong. He probably had the best understanding of the actual swimming - how to make the stroke change the way he wanted (it) to (M of S-12)" (Bloom, 1985, p.176).

The swimmers' parents believed in the values of hard work, self-sacrifice and self-discipline, which were traits the swimmers adopted. Self-sufficiency was highly stressed by the parents of some of the swimmers. Swimmer S-15 said of their parents, "They taught us a lot of self-sufficiency. You won't see me calling home every weekend. They did not breed dependency, they bred independence - from peer group, from them" (Bloom, 1985, p.147).

Responsibility, self-awareness, attitude, "having a feel" for execution of a skill and performer-centred qualities also seem to be very important in self-coaching (Durcan and Oates, 1994; Gallwey, 1986; Lightbown and Croaker, 1995). Whitaker, who coached Great Britain's Olympic men's field hockey team in Seoul (1988) and Atlanta (1996), supported this in stating that high level performance was generated in sport and business in much the same way.

> Really good performers are highly aware and they take a very high level of personal responsibility. I just don't mean elite performers. At any level of performance, in any role - when people perform really well they show terrific awareness of what's going on and what the interaction is. Awareness and responsibility are attitudes of mind (Durcan and Oates, 1994, p.110).

Lightbown and Croaker (1995) believed the bodily feelings of balance, relaxation and rhythm could never be learned but only perceived through an individual's own sense and awareness of the body. In learning or executing a skill, they believed that full attention was required to maximise the benefits of practicing a skill. "The only way to prevent unconscious habits from taking over is to become fully aware of our tendencies...by keenly observing and feeling what we are actually doing" (Lightbown and Croaker, 1995, p.40). Athletes must have a continuing awareness of themselves - their body and mind. "This is an activity of a subtle and inward-turning nature, but it is none the less very demanding work. It is also work which must be done alone since no-one else can take on awareness for us" (Lightbown and Croaker, 1995, p.132). Learning through awareness is a continuing process because there is no end. "To be aware, we need to constantly tune in to the reality of the moment, since there is always something new to notice right now and yesterday's experiences are as nothing until rediscovered afresh today" (Lightbown and Croaker, 1995, p.133). Self-awareness means that we have to be honest with ourselves in acknowledging and accepting what we are thinking day-to-day. This can be done by objectively observing yourself as if you were another person watching yourself, noticing feelings and thoughts and observing the reactions to them (Gallwey, 1986; Lightbown and Croaker, 1995).

Self-observation, a vital process, can be aided by keeping a diary of reactions, feelings and performances. Awareness brings a consciousness of the ever-changing reality of the moment. "Only this direct relationship with reality opens us to life and growth. If we are unaware, we are out of touch with the real state of affairs and closed to what life is trying to tell us" (Lightbown and Croaker, 1995, p.139).

In summary, the characteristics and qualities that could enhance the efforts of a self-coached athlete include commitment, belief/self-confidence, discipline, problem-solving, self-motivation, self-awareness, proactivity, independence and responsibility.

3.5 STRATEGIES FOR SELF-COACHING

Strategies for self-coaching were extracted from the available writings on both sport and business. A range of strategies have been described in some of the 'how to' or 'self-help' books for a variety of sports. For instance *Softball: Slow and Fast Pitch* is not titled or referred to as a self-coaching text, but is essentially that as it offers strategies for softball players to improve their game and skills. The purpose of this book was "to assist all softball players of any age, beginners to advanced, to acquire the knowledge and skills necessary...suggestions are included to foster improvements in performances" (Kneer and McCord, 1995, "Preface"). Self-evaluation questions were included in the book to check the level of understanding and mastery of the material. They suggested that to develop the skills of softball, an understanding of what the skills looked like was required. They also suggested watching the "experts" play, reading books or articles about the game and goal setting as valuable developmental strategies. Their final suggestion was that players set a timeframe in which to learn about the game and to understand their strengths and weaknesses for progression towards playing the game well.

Offering sport science and management related strategies Newman (1986) suggested:

- keep a training diary to monitor performance and reactions to the training programme
- periodic blood testing to prevent, monitor or identify overtraining, potential overtraining or an inadequate diet

- develop and commit to a programme for the entire training and competitive season
- set realistic and achievable training goals
- integrate recovery time and vary training activities to revitalise enthusiasm and motivation.

Moortgat (1996), an American tennis player who experienced self-coaching through his developing years, offered yet another strategy. He was not sure of his actions but he initiated an approach to his self-coaching in the following manner:

> When I was 16 years old, I started keeping a log of what I did on and off the tennis court. I had no real idea of what I was doing, I was just basically writing down how many hoppers I served, set scores, what worked, etc. I wanted to be able to look back and document just how hard I was working. I continued this log through college and on the satellite circuit - never really having a plan, but just writing everything down (Moortgat, 1996, "Introduction").

If Moortgat had a plan of action or a process to complement his log and aid his self-coaching, he may have been able to review and evaluate his actions recorded in the log and find them to be more beneficial and advantageous.

Training to be a dancer is similar to training for tennis or any other sport. Martha Graham, a dancer who created her own artistic forms, kept a diary of her dance experiences which were published as *The Notebooks of Martha Graham*. She recorded her dance experiences learning from each diary entry just as Moortgat did. Graham's notebooks, analysed by Gardner (1993), included such items as dance step sequences, diagrams, drawings and quotations such as:

the notes accompanying *Night Journey* begin by describing some of the opening movements, both in language and in terms of steps. The instructions are quite literal: "Runs with tip 3X l - r - l; two darts and turn to stage r..bourrée turn to stage r. left hand holding right elbow (p.294).

Gardner (1993) stated that Graham:

> drove herself incredibly hard, working alone far into the night, making enormous demands on herself and equally sizeable claims on others. In one memorable defining event, Shawn expressed his regret that Graham did not know a certain dance: "She would look just right in it," he declared. "But I do know it," protested Martha, and soon proved that she had indeed mastered the dance merely by watching others perform it. In the short order that characterizes creators' mastery of their chosen domain, ... (p.270).

Gardner (1993) speculated that Graham developed as a dancer through her notebooks and through observation and experimentation of her own body, either alone or in front of mirrors or friends, and then eventually audiences. These are strategies that sports men and women can also entertain.

Hall (1997) supported Gardner's speculation and added other useful tools thought to help yachtsmen and women with their sailing. First there was observation as utilised by Graham. Hall suggested taking a day off from sailing to watch others sail.

> There is a tremendous amount to be learned from watching a day's racing or even a whole regatta. Afterward, ask the fast sailors why they set up the way they did, or what the wind seemed to be doing that day (Hall, 1997, p.24).

Then there was the 'play way'. He suggested setting up tactical situations with model boats on a table, going through the permutations and the discussions that might take place in those situations. Finally he suggested the 'scholar way' recommending reading books.

Much can be learned from reading and observation and then 'giving it a go'.[2] A swimmer (S-10) in Bloom's 1985 study did exactly this. The S-10 swimmer felt that a coach should be interested in stroke technique but very few coaches were, as most coaches were trainers and not coaches.

> Trainers make you do laps - coaches make you do your legs and stress a stroke
>
> technique....At thirteen I started to get into the sport as a science. I started reading health
>
> books. I started watching stroke-technique films. I would watch films for an hour everyday
>
> and then go out and try to do it (Bloom, 1985, p.166).

Kidman (1995) completed Doctoral research on self-directed training programmes aimed to enhance coaching effectiveness. The coaching effectiveness programme included such methodologies as systematic observation instruments, self-reflective analysis, reflective questioning and supervisory feedback. Even though Kidman's research was designed for a self-directed coach, a self-coached athlete could adopt these same methods. Systematic observation instruments included video taping, coding of behaviours and quantitative counting of certain actions exhibited. Self-reflective analysis was a process which helped identify and analyse certain behaviours, such as, how feedback was given whether it be informative, positive, or correcting, high-order or low-order questioning, transition to another drill, justification of the activity and organisation for a training session. The procedure of self-reflective analysis in the coaching process was dependent upon the skills of observation,

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[2] A New Zealand colloquialism for experimentation or trying something out.

analysis, modification and re-evaluation of coaching behaviours (Kidman, 1995). These same skills could be part of self-reflective analysis in self-coaching. Reflective questioning provides guidelines or information about areas to be analysed, such as technique, performance or behaviour. Supervisory feedback, as applicable to coaches, would be different in that the athlete or an outside observer and not a regular coach would provide the feedback.

Greenwood (1986) also promoted the use of reflective questioning as a strategy to enhance the athlete's comprehension and development of self-coaching. He believed that the coach's whole approach to coaching could reinforce or inhibit the opportunity to learn to self-coach. A coach could reinforce self-coaching by asking questions that the player could answer and inhibit it by imposing answers without explanation. Every time a question was asked that the player could answer, willingness was built up to try to solve the problem and reinforcement was given to ensure that the point would not be forgotten. Greenwood, as Hall (1997), believed that every player was their own best coach.

Zepke, Nugent and Roberts (1996) also wrote about self-reflection in regards to teachers. Self-reflection helped the teachers to develop the capacity for critical evaluation of their practice and for critical self-awareness. This is potentially relevant to self-coached athletes. Self-reflection demanded that individuals be self-directed, demonstrate emotional competence, be able to think and be able to self-assess.

Both reflective questioning and self-reflection are effective tools to help an athlete learn to self-coach. In reflective questioning the athlete is guided by the coach and in self-reflection the athlete provides the guidance.

The range of opportunities thus identified for self-coached athletes to employ when coaching themselves, are reviewing the sport literature, goal setting, keeping a training diary or log book, sport science testing, programme planning and development, observation, experimentation, simulations, self-analysis, reflective questioning, self-reflection and video analysis. My research will explore other strategies to add to this repertoire.

3.6   SELF-COACHING STEPS

There is scarce academic documentation to inform a self-coached athlete exactly what self-coaching is, to offer any guidelines for self-coaching or to provide a model to be followed. However, there are some popular books, which provide training programmes or directions that self-coached athletes may use. The jacket cover of *The Self-Coached Runner II* stated, "Here is the first book designed specifically...[to teach] you how to coach yourself (Lawrence and Scheid, 1987). The stated emphasis of this book is to teach people how to teach themselves, yet no guidelines are provided for this to occur. Such books provide training plans, practices and/or drills and skills that athletes could work on to improve their performance and hopefully their performance outcomes in sports ranging from netball, golf and distance running to cycling and rowing. Pre-set training programmes are provided (similar to a cafeteria menu) for readers to pick and choose from, but direction on how to write or develop their own is not given. In the introduction Lawrence and Scheid stated that the book was "designed to act as your coach and to train you to coach yourself" (p.xiii). It could act as a coach as ready-made training programmes are provided but guidelines for athletes to follow to train themselves are not. Typically, none of these writings provide actual steps or guidelines for people to learn the ingredients of self-coaching or what one has to do to successfully self-coach.

There are exceptions. Hodge et al. (1996) revealed that the aim of compiling their book *Smart Training for Peak Performance* was "to provide you with the 'tools' to design your own training programme in order to achieve peak performance" (p.140). Many athletes and coaches understand what their final goal is, but cannot visualise the steps to be taken to get them from their current point to where they would like to be. Hodge et al.'s book is basically about self-coaching, providing a systematic method and a resource for athletes to plan their training programmes to gain consistent peak performance.

"You need to identify clearly what a peak performance looks and feels like for you - paint the picture..." (Hodge et al., 1996, p.7). This is the first step that I have identified for the elite athlete who self-coaches. Once the athlete is aware and has a vision of what it takes to achieve their identified goals then a plan of action aiding the athlete to reach peak performance at the right time can be developed. Through this process greater motivation and commitment are realised. Also, attention and effort are focused on the goals that have been set, which then provides feedback and evaluation for the athlete.

Hall (1997) supported this and agreed that self-coaching can be learned and improved like any other skill.[3] Hall has identified four major aspects to self-coaching, which could be interpreted as steps. They were:

> the ability to recognize weaknesses;
>
> the ability to identify the cause and design ways to address those weaknesses;
>
> the ability to efficiently manage time on the water for maximum productivity in practice;
>
> the ability to recall practices and races to examine what went right and wrong (Hall, 1997, p.22).

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[3] I wouldn't say that self-coaching is a skill; it is a concept.

He has provided some guidelines for each point. He suggested that a sailor (or an athlete) could be overwhelmed or discouraged when identifying and prioritising their weaknesses and it may be difficult for them to be honest with themselves. Next it was necessary to analyse the cause(s) of the weakness(es). Hall believed this step, identifying and addressing the cause(s) of the weakness(es), to be the most difficult of his four points. Reflective questioning, as Greenwood (1986), Kidman (1995) and Zepke et al. (1996) suggested, could be quite beneficial by asking 'why' when analysing each skill or activity and would help remedy the weakness(es). This is important for the necessary changes to be made. Hall also considered time management quite important so the athlete could manage the time spent on improving each weakness. Concentration and focus, as previously noted by Orlick (1996), were two key skills Hall (1997) mentioned as necessary for the essentials of time management. The last aspect, debriefing and analysing training and competition, could assist in planning for the future by asking questions, which start with "we could've tried...what if...should we" (Hall, 1997, p.24).

Greenwood (1986) and Zepke et al. (1996) provided support for the reflective questioning process. They have identified steps such as make observations about the training, identify areas for improvement and change, implement them and then continue observation for reflection upon further changes. These steps were similar to those outlined in the coaching models of Côté et al. (1995), Fairs (1987) and Worthington (1980).

Dewey's notion of reflective action, a cyclical process of self-appraisal and development discussed by Pollard (1997) is also similar to that espoused by Greenwood (1986) and Zepke et al. (1996). Pollard has applied it to teaching but once again it can be applied to self-coaching. Six characteristics have been identified in respect to reflective teaching, which will

be discussed in relation to self-coaching. Reflective teaching implies an active concern with aims and consequences, as well as means and technical efficiency. In self-coaching it is foreseen that the process would involve identification of goals and objectives and the paths to their achievement. An athlete must also understand what the consequences may be of choosing one path over another in search of success. Reflective teaching is applied in a cyclical or spiralling process in which teachers monitor, evaluate and revise their own practice continuously. A self-coached athlete must replicate this cycle.

Reflection can be used as a learning technique within self-coaching. Reflective learning is the process of learning from personal experiences and requires autonomy, emotional competence, thinking and self-assessment. "Autonomy" can equate to "self-directed".

> An autonomous person [sic] is able to choose their own goals and decide on procedures that will enable them to reach those goals without relying on others for approval....They are able to ask for help when they need it and are able to express their own perspectives on matters. They recognise and value that there are a range of emotions and they acknowledge that they can choose their own emotional response in any situation (Zepke et al., 1996, p.192).

Emotional maturity allows criticism to be accepted and learned from. It requires a non-defensive stance for filtering the criticism and taking it constructively. Thinking skills are developed by problem-solving and allowing creativity and imagination to become integral to the thinking process. Self-assessment is effective in developing self-awareness and identification of steps for growth and development. An individual's actions are reflected upon and self-assessment is based on each of the steps of reflective learning. Athletes may adopt

this and become reflective practitioners or, in this case, reflective athletes. The process is modelled by Zepke et al. (see Figure 3.1).

Reflective practitioners

↑

Skilled self-assessors

⌒‿⌒

Autonomy   **Emotional competence**   **Thinking skills**
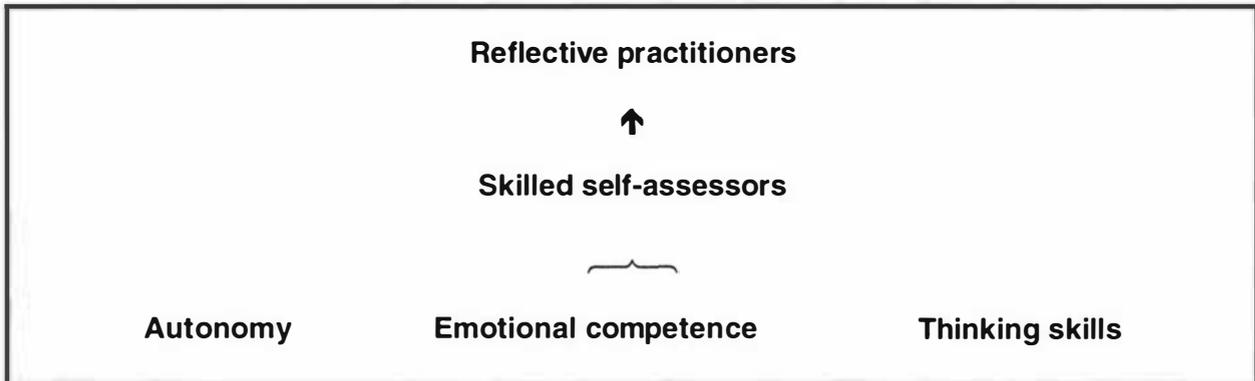
Figure 3.1: Reflective Practitioners (Zepke et al., 1996, p.194)

Using the skills of autonomy means that the athletes choose what is to be reflected upon and how they are going to reflect upon it. They decide what they want to learn or practice, how they will learn or practice it and identify what outcomes they wish to achieve. Emotional competence allows them to take responsibility for their feelings in relation to the processes and outcomes to be realised. Thinking skills are necessary for the planning process and evaluating the progress that is made. Self-assessment helps the learners, in this case the athletes, achieve continuous self-improvement in any area which they choose to reflect on.

Whitaker, cited in Durcan and Oates (1994), used reflective questioning to involve the players in recommending their own ideas for improvement when they were not meeting set performance standards.

> I vowed I would coach in a different way, that I would truly try to involve the guys who
> were on the field in the coaching, so that instead of telling them how to play I would ask
> them what was going on (Durcan and Oates, 1994, p.101).

Whitaker's coaching methods, supported by Gallwey (1974), Greenwood (1986) and Zepke et al. (1996) involved asking the players to think about a specific area, such as technique, where a problem in skill execution was occurring. Questions were then posed to raise the players' awareness of what happened when they performed that skill. Asking questions facilitated the players' ability to learn and understand the correct technical execution of the skill.

Suggesting another alternative, Gallwey (1974) in *The Inner Game of Tennis*, proposed steps to an inner way of learning which could be adapted for use in self-coaching. The self-coached athlete could adopt the following steps:

- observe, without judgement or correction, existing behaviours and identify the elements that require attention or change
- ask themselves to change and re-programme with image and feel, to observe and absorb visual and mental imagery, to picture themselves performing the behaviour as they desire and then do whatever they feel is necessary to perform it
- without any conscious effort to control the desired behaviour, give their body the chance to explore the possibilities of how to produce the behaviour and, if difficulty continues, they should start at the beginning again
- observe the results without judgement until the behaviour is in the automatic phase, trusting their body to respond to the re-programming, as any interference will allow frustration to occur.

Cunningham (1986) offered suggestions he thought might help a sculler to become their own coach. Experimentation, observation, discovery and practice were offered, as well as strategies such as viewing videos, photos or getting reviews from a friend.

Whitmore (1994) spoke of a self-coaching process in the business sense that a "business coach" gets the most out of the person being coached by implementing the mnemonic GROW

which stands for "Goals, Reality, Options and Will". GROW answers the following questions: (Goal) What do you want?; (Reality) What is happening?; (Options) What could you do?; and (Will) What will you do? These stages match some of the others included in a variety of coaching models discussed in Chapter Two. The "Reality" stage equates to a situational analysis, which is included in Worthington's "knowing cycle" of his "1980 Dynamic Model of Coaching" and in Step 1 and 2 of Fairs' "1987 Five-Step Model of the Coaching Process". The "Will" stage equates to action plans as included in Step 3 of Fairs' "1987 Five-Step Model" and the "alternatives generation and evaluation" stage as outlined in Durcan and Oates (1994) "CALAIS Loop".

In the "Goal" setting stage, the athlete defines exactly what is to be gained and by when from the experience, be it a practice session or a competitive situation. Both end-goals and performance-goals must be determined through the process of answering questions related to determining the specific goals.

"Reality" pertains to understanding and clarifying the current situation and is, as such, a situational analysis. Questions are designed to evoke factual answers from the athlete utilising descriptive rather than evaluative terminology to help maintain objectivity, which is not considered counter-productive self-criticism to the individuals being coached. "Reality" questions provide the best method for self-assessment. Self-awareness is raised during this phase.

The "Options" stage allows all the possible alternative courses of action and behaviour to be defined so that the goals set in stage one may be achieved. Specific action-steps will be developed from this list.

The "Will" questions allow an action plan to be developed from the list of options presented, which will see the goal become a reality. The questions included in the "Will" phase determine exactly when, what and how the action plan will be implemented.

These steps, guidelines or processes are all forms of self-development. Self-development allows individuals to define their own learning needs, meet them in their own ways, in their own time, place and pace. "An effective self-development programme is based on both a systematic process and a clear outline of what knowledge, skills and attitudes must be developed" (Zepke et al., 1996, p.168). Self-development and self-coaching are almost interchangeable and both can be obtained through action research. Action research has been defined as, "A systematic process which uses four moments, planning, action, observation and reflection to achieve self improvement" (Zepke et al., 1996, p.185). These four "moments" include initial reflection, recording of the existing situation, finding relevant information and designing an action plan. The results of the action plan must be observed and then analysed so the next stage can be defined. Self-development and action research components closely relate to the ideas presented by Whitaker, cited in Durcan and Oates (1994), Greenwood (1986), Hall (1997), Pollard (1997) and Whitmore (1994). It appears that these steps are essential to self-coaching in sport, which my research aims to confirm.

Specific detailed self-coaching steps or guidelines are not offered in the literature, but Cunningham (1986), Durcan and Oates (1994), Gallwey (1974), Greenwood (1986), Hall (1997), Pollard (1997), Whitmore (1994) and Zepke et al. (1996) have presented a skeleton of guiding steps for self-coached athletes to adapt to develop their own specific self-coaching plan. These processes can be summarised as identifying strengths and weaknesses; reflecting on skill performance; identifying areas for change; implementing a plan of action;

experimentation; situational analysis; and reflective questioning for the athletes themselves to answer.

3.7   COACHING STYLES

In the 1960s and 1970s the old school of thought labelled the successful coach as a domineering forceful leader who gained power and respect more through fear and hate, rather than by "earning it". This was an era when the coach was accepted as the autocratic, dominant leader, while the athlete was a disciplined follower who had "empty vessels into which everything must be poured" (Gallwey, 1974, p.6). Gallwey believed that athletes were like acorns. They had the potential to be magnificent oak trees and required nourishment, encouragement and light to reach towards the "oak treeness" already within. In this description he was referring to concepts of self-coaching. I believe self-coached athletes are similar to Gallwey's acorn analogy.

Coaches now tend to achieve their goals through more humanistic approaches and the authoritarian approach is waning. Athletes are encouraged to question and be involved in their own development (Daly and Parkin, cited in Pyke, 1991). Modern coaching, according to Douge and Hastie (1993), should include the athlete in the coaching process and fit the situations and needs of the athletes involved.

Brian Miller, cited in Taggart (1991), described a coaching style termed "empowering" as one which ensures the athlete retains initiative and reduces dependency on the coach, in contrast to traditional coaching styles where coaches made athletes dependent upon them. Empowerment means imbuing people with sufficient self-confidence and competence so they are able to exercise, individually or jointly, discretion and resolve issues which otherwise

would have been referred elsewhere. It enables people to have greater control over their own destinies (Durcan and Oates, 1994).

Indirect or co-operative coaching is a process of gradually empowering athletes to develop their own skills and make their own decisions as they move towards skill mastery. This enables them to be involved in the control, discipline, outcomes and decision-making process of their sport environment (Durcan and Oates, 1994; Rees, 1988, cited in Paterson, G.D. 1995; Weiss and Friederichs, 1986).

Paterson, G.D. (1995) suggested that an indirect style of coaching is a participant centred style, which supports Weiss and Friederichs' (1986) explanation. Paterson administered a questionnaire to discover which coaching strategy participants preferred to promote the development of self-esteem. The majority of the respondents, in the areas of discipline (88%), leadership (94%), control (81%) and relationship (95%) favoured the indirect coaching style, which involved the sharing of power with the participants. This coaching style sits well with current trend that facilitation is better than telling and lecturing.

Hemery (1986) summarised the coach's role in self-coaching as a manner or sense in which coaches worked themselves out of a job. "Their experience and knowledge is passed on to the athlete and at the same time, the coach is attempting to make the athlete more independent" (p.62). Hadfield (1994) believed that "the ultimate coach is one who empowers a youngster to be a champion and all but makes him or herself redundant" (p.7).

Clews, cited in Dyer (1989), believed that the greatest responsibility of a coach was to develop well-educated athletes capable of making independent decisions as this approach:

can enhance athlete self-esteem by involving the athlete in decisions affecting the training sessions, racing schedules, and good competitive skills. This encourages the athlete to take responsibility for herself [sic], her [sic] self-image and her [sic] athletic performances. If she [sic] feels certain relationships or beliefs are negative and detrimental to her [sic] performances she [sic] must know that she [sic] has the power to change them (p.276).

Coaches can, however, possess a variety of coaching styles. Martens (1997) and Martens, Christina, Harvey, and Sharkey (1981) identified three styles of coaching: the command style, where the coach makes all the decisions and the athletes respond to the coach's demands; the submissive style, which is very laissez faire; and the co-operative style. Coaches who followed the co-operative style shared decision-making with the athletes and were most likely to prepare the athletes for adoption of self-coaching techniques. "Co-operative-style coaches provide the structure and rules that allow athletes to learn to set their own goals and strive for them" (Martens, 1997, p.13). Martens (1997) suggested that coaches should help the athletes understand how each technique and tactic, related to their sport, was placed in the overall scheme of that sport. Coaches should "strive to provide them with insight so they can make intelligent decisions about how to perform. With better understanding, athletes are able to take greater responsibility for their own learning" (Martens, 1997, p.57).

Martens (1997) strongly supported the co-operative style of coaching as:

> it is conducive to helping athletes learn to become more responsible for themselves and therefore more independent....The command style is increasingly being rejected today by coaches of young and adult athletes alike, for it treats athletes as robots or slaves, not as thinking human beings (pp.13-14).

This is the style that coaches may be encouraged to adopt to promote the idea of self-coaching and one which is close to empowerment. Self-directed, or self-coached, athletes would want to be empowered to feel a sense of control or to feel in charge of what they are doing. Such athletes should be given the responsibility or opportunity to make their own decisions on strategy, training plans and warm-ups (Kidman and Hanrahan, 1997). Kidman and Hanrahan also supported the co-operative style of coaching.

Tutko and Richards (1971) also identified three coaching "types": the dominating (authoritarian) coach, who emphasised aggression and discipline; the personable coach, who was people oriented and liked by all; and the casual coach, who was easy going and relaxed, not showing much concern for the athletes or situation. These are quite similar to those described by Martens (1997) and Martens et al. (1981).

Use of Authority by the Coach					Area of Freedom for the Athlete
Tells Makes Decisions	Sells Makes decisions	Consults Gets suggestions	Shares Defines limits	Delegates Allows athlete to function within defined limits	Advises Assists only when advice sought by athlete
Announces Them	Explains it	Makes suggestions	Lets athlete make decision		
Authoritarian		Democratic			Laissez-faire

Figure 3.2: A Continuum of Coaching Styles (Tutko & Richards, 1971, p.6)

Many other researchers' findings (Carron, 1988; Cratty, 1989; Kidman and Hanrahan, 1997; LeUnes and Nation, 1989) reflected those of Martens (1997), Martens et al. (1981) and Tutko

and Richards (1971). Whatever coaching style the coach chooses it must match each athlete's unique personality and earn the respect and affection of the athletes being coached. Coaching leadership styles vary from the task-oriented coaches to the people-oriented coaches as defined in Figure 3.3 below.

TASK ORIENTED LEADERS	**AUTOCRATIC** COACH ATHLETES	• **One-way line of communication** • **"My Way or the Highway" approach to coaching**
	DICTATORIAL COACH ATHLETES	• **Two-way line of communication but the coach has the final say** • **The "benevolent" dictator**
PEOPLE ORIENTED (SOCIAL) LEADERS	**DEMOCRATIC** COACH ATHLETES	• **Coach and athlete have an equal say in team matters** • **Decisions made by consensus or majority vote**
	LAISSEZ-FAIRE "Do As You Please" COACH ATHLETES	• **Little or no direction from the coach** • **Individually the norm** • **Communication is mixed**
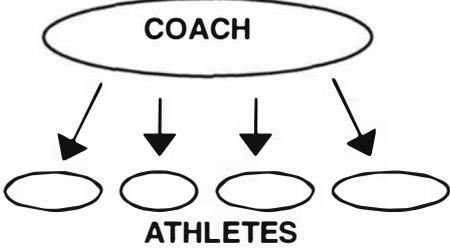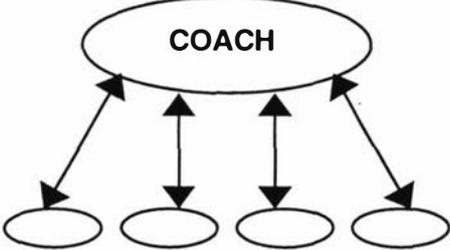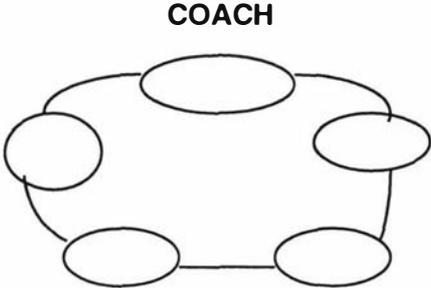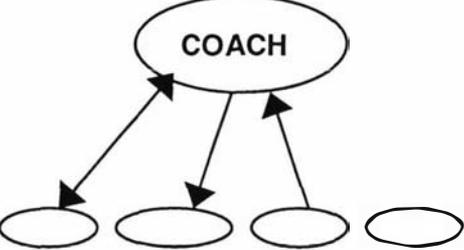
Figure 3.3: The Influence of Various Athletic Leadership Styles Upon Team Communication and Decision-Making (Vernacchia, McGuire and Cook, 1992, p.37)

Analysis of data by age, in a study completed by Holmes (1980), indicated that the perceptions of instruction varied with young players in comparison to those of the more experienced players. The younger players accepted being told what to do and expected to be instructed, while the more experienced players preferred to discuss tactics and technical corrections. An experienced player "tended to know when he [sic] was doing things that were not quite working out, and preferred to work it out for himself [sic]" (Holmes, 1980, p.25). The results of Holmes' research implied that more experienced athletes preferred a co-operative style of coaching and the younger players an autocratic style.

The last stage of a swimmers' development, termed "the later years" in a study by Bloom (1985), were marked by a move to a master coach with an excellent track record. During this stage most swimmers progressed to a different kind of relationship with their coach. The swimmers had become much more self-directed after having a history of working with several different coaches, competing under varied circumstances and still having success. They knew ways to generate their best results and sought a more collaborative relationship with their coach. The more authority the athletes had over themselves, the more they saw that their coaches respected their feedback, the more committed they became. This supports Holmes (1980) study that more experienced athletes prefer a co-operative style of coaching.

This co-operative style of coaching was not limited to sporting endeavours. The third phase of learning for Bloom's pianists, like "the later years" stage for the swimmers, was:

> the time to find the meaning and emotion of the larger experience, and to make music one's own. The pianists learned to make personal decisions about expression and interpretation based on technical knowledge, historical understanding, and deep and close personal associations with other musicians (Bloom, 1985, p.423).

This was supported by P-1 who said:

> Over a period of years the pianists began to identify and develop personal musical styles.
> They began finding and solving their own problems and satisfying themselves rather than
> the teacher. Eventually, ..., you reach the point where you must become your own critic.
> You know yourself when you have (given a solid performance) and you know when you
> haven't (Bloom, 1985, p.423).

This example supports the co-operative style of coaching leading on to a self-coached phase.

3.8   SUMMARY AND REVIEW

Even though little has been written on self-coaching, especially in academic literature, this
review of a range of writings has provided a basis from which to determine how self-
coaching is defined, reasons to self-coach, what its characteristics/qualities are, strategies that
may enhance self-coaching and what steps may be involved in self-coaching. A good
grounding is provided on which to formulate and develop research-based guidelines.

Various coaching styles were also discussed to provide an overview of the philosophical
viewpoints and attitudes towards coaching. Empowering, indirect, co-operative and
democratic styles are those most closely related to self-coaching.

Tellez, cited in Lawrence and Scheid (1987), indicated the potential importance of self-
coaching.

> In the future, as our sport progresses, it will become essential that *runners* as well as
> coaches become aware of the information in this book. It will no longer suffice for runners

to follow blindly their coach's instructions, because even sprinters will need to make split-second decisions during a race. In essence, so that the standards of our sport will continue to improve, all competitors will need to become "self-coached runners" (p.255).

All athletes, not only runners and their coaches, would benefit from the realisation of the significance of self-coaching and the impact it might have on the achievements of their dreams.

Chapters Two and Three have provided an overview of the literature on formal coaching and self-coaching respectively. A review of the methodologies utilised to answer the research questions follows in the next chapter.

THE RESEARCH PROCESS

It is not arrival but the journey itself which is fulfilling (anonymous).

4.1   OVERVIEW

An overview of the research design and procedures used to address the research questions and develop a framework for self-coaching are provided in this chapter. The research methods are described and the rationale for using them discussed. The ethical principles that guided the study are explained. The chapter concludes with a summary and review of the research programme.

To ascertain whether elite athletes self-coached and to determine the coaching techniques they used, multiple methods were implemented. Qualitative research was used to investigate the terminology and techniques used by Olympic level athletes and to identify the factors that led these athletes to self-coach. SPSS data analysis enabled specific items such as the gender, training hours and numbers of athletes competing in different Olympic sports to be analysed.

Figure 4.1 outlines the research process and the interaction between the different methods used in this investigation.

1995

1995-1999

1998-2000
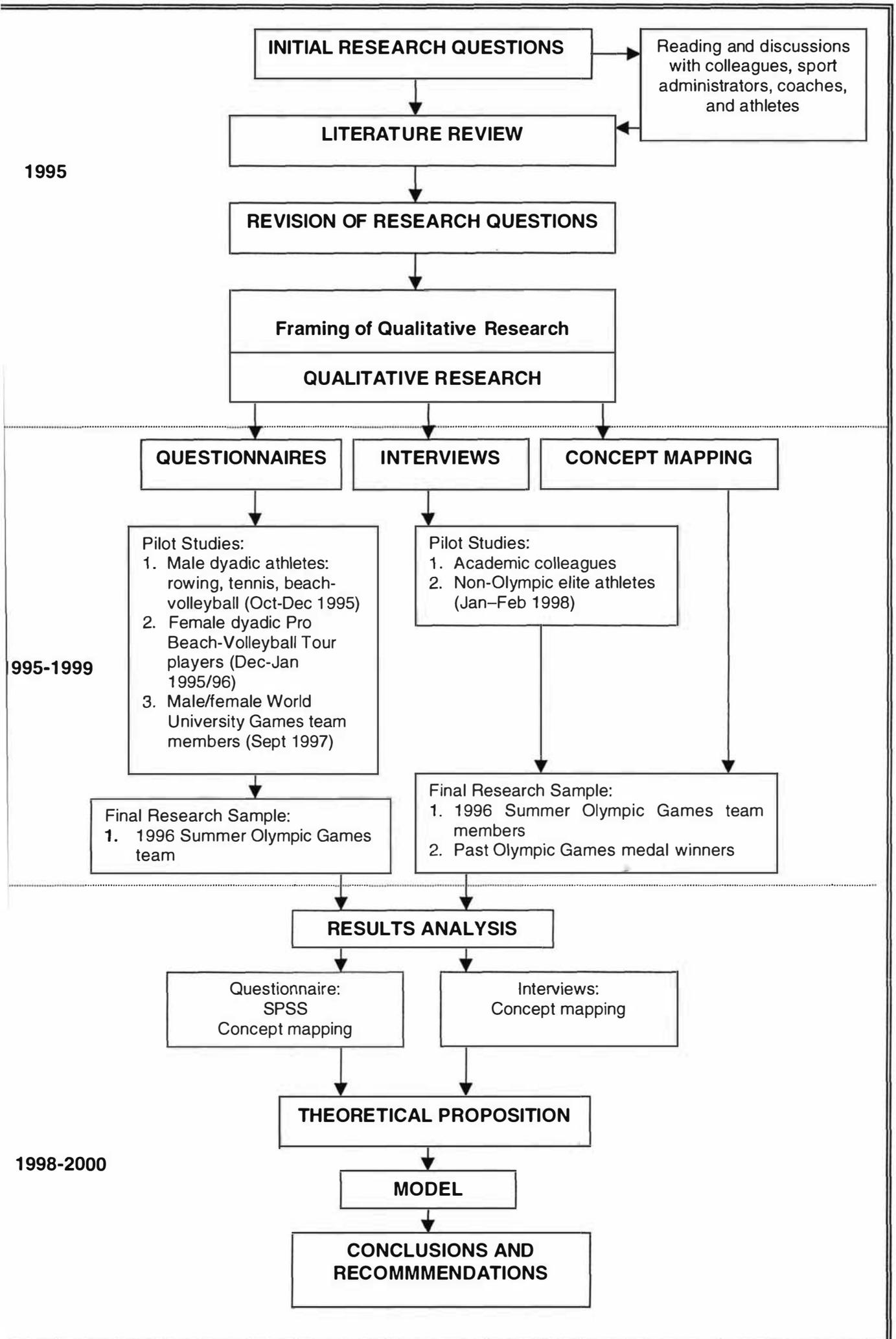
Figure 4.1: Research Process Map

4.1.1 Evolution

The research process was evolutionary as it developed through the literature review, pilot studies and the data collection. I value transparency as a significant factor in any research. As a result a chronological disclosure of process is the reporting mechanism. It is hoped that the resulting transparency will make this research more useful to coaches, athletes, stakeholders, sport administrators, and other scholars.

As an avid volleyball player, coach, team manager and administrator, I initially had an interest in researching self-coaching with respect to women beach-volleyball players. In New Zealand, beach-volleyball developed from the traditional indoor game to a 'new' outdoor game. Coaching manuals were not available, nor were people with specialist skills in coaching this 'new' game. Players were left to their own devices to develop their skills and game tactics, and to coach themselves.

I had coached women in volleyball for several years. My involvement and informal research about the way women coached themselves in two-person beach-volleyball teams provided the impetus for this study. I had been advised that the requirements of a doctoral thesis demanded expansion of my topic to include other sports where women competed in dyads with beach-volleyball being retained as the main case study. Other sports (i.e. badminton, bowls, rowing, shooting, synchronised swimming, tennis and the yachting 470 class) where women competed in dyads were therefore included in this study. The eligibility criteria were limited to athletes who had competed in the Olympic Games, the Commonwealth Games or a World Championship. My experiences as an athlete who trained without the guidance of a coach, a national coach whose athletes were under my direction for limited periods, a team manager who advised athletes who were competing in the absence of a coach, an academic who

recognised the void in the literature and an administrator who discussed similar situations with coaches and athletes provided further impetus for this study.

In preparation for the research three preliminary studies were conducted to determine the extent of self-coaching, and inquiries were made as to the potential benefit to New Zealand sport in conducting this thesis. Firstly, a questionnaire was administered to male athletes who competed in dyadic teams either in rowing, tennis or beach-volleyball. Then, a questionnaire was piloted on developing women beach-volleyball players, competing in dyadic teams, during the 1995-1996 New Zealand Pro Beach-Volleyball Tour. Finally, a revised questionnaire was posted to members of the 1997 World University Games team.

Findings from these pilots studies indicated that self-coaching was the dominant form of coaching in the lives of many athletes competing in teams, dyads and individual sports in a variety of sports in New Zealand. These findings, the existing literature gaps on this subject, and the expression of interest from the New Zealand Sports Foundation and the Hillary Commission, invited attention to the concept and phenomenon of self-coaching. The research emphasis was therefore refocused and a study of elite (Olympic) athletes, both male and female, participating in team, dyad, and individual sports was undertaken.

4.1.2   Research Questions

The research seeks to define and explain self-coaching and provide an effective management framework for self-coached athletes to implement.

The following research questions were developed and guided the study.

- Was self-coaching considered as the process of athletes having responsibility for their own development, performance enhancement, achievement and organisation at the elite level of sport without the full-time guidance of a coach?
- How did elite athletes define the concept of self-coaching?
- Did elite athletes follow a set process in coaching themselves?
- If so, what was this process?
- Did elite athletes implement strategies to enhance self-coaching?
- If so, what strategies did they implement?
- What are the characteristics/qualities that can be directly associated with, or need to be present in elite athletes, for successful implementation of self-coaching techniques?
- What are reasons or identifiable situations that push elite athletes into self-coaching?
- What are the essential determinants of a successful self-coaching programme?

4.1.3 Selection of Participants

The eligibility for participation in this study was based on two criteria:

- being a member of the 1996 New Zealand Summer Olympic Games team or
- winning an Olympic Games medal for New Zealand at any time in the past.

Email and telephone conversations with the New Zealand Olympic Committee (NZOC) saw approval being granted from their Secretary General, Michael Hooper, to post a covering letter with a questionnaire to the 97 members of the 1996 Olympic team (see Appendix 1). An information sheet and consent form to participate in an interview was also sent to all past Olympic medal winners (see Appendix 2). Thirty-six athletes who returned their signed consent form were interviewed at a time and place specified by them. This made it easier for respondent participation and allowed for participants to choose an environment in which they felt most comfortable.

In accordance with the guidelines of the New Zealand Privacy Act (1993) all questionnaires and covering letters were posted from the NZOC's Wellington headquarters. The Act contains provisions for the protection of individual privacy in relation to the collection, storage, use, access, correction and disclosure of personal information which are detailed in the Act's twelve principles (Privacy Commissioner's Case Notes, 1994; Sullivan, 1995). This Act applies to every person or organisation in New Zealand and by law the NZOC must comply with the Privacy Principles with regard to dissemination of their member's names and contact details.

The 1996 Olympic team was chosen to complete the self-administered questionnaire based on their assumed interest in and their relevance to the research. Such non-probability sampling makes no claim for representativeness and is employed in exploratory, observational and qualitative research. In purposive or judgmental sampling the researcher purposely chooses the research participants as they are thought to be relevant to the research topic (McBurney, 1994; Sarantakos, 1993). The 1996 New Zealand Summer Olympic Games team and the past Olympic medal winners comprised elite level athletes who had a high probability of being self-coached or who had had self-coaching experiences and were, therefore, considered to be relevant and interested in the research topic.

To select the individuals to be interviewed from the 1996 Olympic team quota sampling, a version of stratified purposive or judgmental sampling, was utilised. Quota sampling allows the researcher to select a quota of respondents to be chosen from a specific population group. As the sample size for this portion of the research was quite small, dimensional sampling, which considers all dimensions of the population and ensures that each dimension will be represented, was used to ensure each sport was represented. Returned questionnaires were

reviewed to select two athletes per Olympic sport from those that completed the questionnaire (11 sports).[4] Only one respondent was chosen for sports with few representatives such as archery and shooting.

4.2   METHODOLOGICAL PERSPECTIVES

Little information existed on the topic of self-coaching supporting the need for this topic to be explored and researched. "One of the chief reasons for conducting a qualitative study is that the study is exploratory; not much has been written about the topic or population being studied, and the researcher seeks to listen to informants and to build a picture based on their ideas" (Creswell, 1994, p.21). Qualitative research is employed to emphasise the researcher's role as an active learner who tells the story from the research participant's view rather than as an expert who gives their own views and judgements (Creswell, 1998). I wanted to appreciate and understand self-coaching from the experiences and perspectives of the Olympians themselves. This was my purpose for choosing a qualitative paradigm throughout this research.

Lincoln & Guba (1985) described the qualitative paradigm as a constructionist/constructivist or naturalistic approach and Smith (1983) as an interpretive approach. Denzin and Lincoln (1998) explained:

> Qualitative research is multimethod in focus, involving an interpretive, naturalistic approach to its subject matter. This means that qualitative researchers study things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meanings people bring to them....Accordingly, qualitative researchers deploy a wide range

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[4] New Zealand was represented in 15 of the 26 sports on the 1996 Summer Olympic Games calendar.

of interconnected methods, hoping always to get a better fix on the subject matter at hand

(p.3).

Within the qualitative paradigm there are several assumptions which include the ontological, the epistemological, the axiological, the rhetorical, and the methodological.

The ontological assumption deals with the issue of what is real, or what is the nature of reality? Multiple realities exist as reality is subjective and socially constructed by the research participants' perceptions and definitions of the situation and the way they make sense of their experiences. The realities of the researcher and those of the audience (readers of the study) must also be considered. The 'realities' of this research were predicated on the voices and interpretations of the participants. 'Meaning' was interpreted from the experiences of the participants and by the participants. I wanted to understand self-coaching from the point of view of the Olympians themselves.

The epistemological assumption, the relationship of the researcher to those being researched, is one of interaction (Creswell, 1994; Creswell, 1998). The interactionist paradigm views social life as a process of interactions among people. This interaction may be in the form of living amongst or observing the research participants over a period of time. In this research I held face-to-face semi-structured interviews with the interview subjects. The epistemological underpinnings of this research were based on the understanding that, in the interviews for example, the Olympians who experienced or had opinions of self-coaching could convey their perceptions, descriptions and insights of self-coaching as a result of the interaction with me as the researcher. This interpretative and interactionist approach then sought to communicate and consider these views and place them in a more general framework for application to all elite athletes.

The axiological assumption considers the role of values. Qualitative research is interpretive and therefore value-laden. "Values" can bias research and findings, but if values are openly reported in the study (Creswell, 1994; Thomas and Nelson, 1990) and explicitly transparent throughout the research process, the work withstands scrutiny from such criticism. For example, feminist writers, and the feminist methodology, were at the forefront of this focus of late twentieth century qualitative research (Kramarae and Spender, 1992). In work which deconstructed language and meaning (Spender, 1985) and which explicitly demonstrated the gendered nature of language, and the gendered standpoint of the researcher (Waring, 1988), they insisted on the transparency of the researcher's values through the use of the first person 'I' and through personal disclosure (Finch, 1986; Oakley, 1981).

The use of words and language, the rhetorical assumption, is different from that of quantitative researchers, as qualitative language is personal, informal and based on definitions that evolve from the study, while quantitative language is formal and impersonal. Quantitative and qualitative studies differ in the point of view used by the authors which refers to the "point from which the action of the narration is viewed" (Brooks & Warren, 1961, p.208 cited in Creswell, 1994, p.146). Hodges and Whitten (1977), cited in Creswell (1994), stated that a writer had three choices in which to present their point of view: the writer is the one speaking, the writer is speaking to the reader, and the writer is telling about the action.

> Researchers commonly use the more literary point of view of first or second person in **qualitative** studies. Personal pronouns such as *I, we,* and *you* may be written into the introduction. These points of view convey a personal, informal, writing stance that lessens distance between the writer and the reader (a qualitative epistemological stance) (p.147).

"From these distinctions about reality, the relationship between the researcher and that researched, the role of values, and the rhetoric of the study has emerged a **methodology** – the entire process of a study – that differs too" (Creswell, 1994, p.7). The qualitative methodology in this research inductively sought the emergence of analytical and other categories from the research participants' realities, rather than identifying them in a deductive process. This inductive process determined the development and explanation of the concepts, patterns and/or theories of self-coaching.

"Inductive research begins with observation (or unstructured interviews) and moves toward a descriptive understanding of this world" (Tolich and Davidson, 1999, p.32) from which new theories or policies may emerge. In other words, generalisations from the analysis of research data lead to the development of these theories. I wanted to discover or understand the concept of self-coaching. With limited literature on self-coaching, inductive logic was important in order to collect and analyse data on the concept of self-coaching.

The approach adopted conditions the choice of methods used in the course of research. Methods are the particular procedures chosen to collect and analyse data or those used to observe, describe and analyse aspects of everyday life (Aitken and Gaffikin, 1987; Blaikie, 1993; Miller and Dingwall, 1997). Methods chosen must be consistent with the underlying methodological assumptions of the research.

A discussion is now provided on the way self-administered questionnaires, semi-structured interviews and concept mapping were used in this study, in the context of the above methodological perspectives.

4.2.1 Questionnaire Design and Application

Questionnaires offer an efficient, yet a broad means of gathering data speedily. The main characteristic of the self-administered questionnaire is that the data provided by the respondents are given with limited interference by the research personnel. When developing the questionnaire, special considerations were given to the layout, the ease of comprehension, the ease of completion, the wording of the questions, the time required to complete it and the lack of ambiguity. The questionnaire was designed to elicit perceptions about the Olympic athletes' experiences and ideas about self-coaching.

Questionnaires have several advantages. They are less expensive than other methods. Kidder (1981) gave this advantage extra clarity in saying that questionnaires can be sent through the mail and interviewers cannot. They can be completed at the respondents' convenience providing the respondent time to think about their responses. A greater assurance of anonymity is offered and bias or errors caused by the presence or attitudes of the interviewer are avoided. The results can be produced quickly from a generally wider coverage than when using other methods and there are minimal problems of "no contacts".

Questionnaires also have limitations largely relating to the fact that they are not really compatible with the methodological perspectives described previously. They do not offer probing, prompting or clarification opportunities and additional information cannot be gathered. No observations can be made and partial response is quite characteristic. The identity of the respondents and conditions under which the questionnaire is answered and whether the questions are completed in order or not, may be unknown. The main problem with questionnaires is the potential for low response rate (McBurney, 1994).

Questionnaires are also limited in that they produce large amounts of information, are time consuming and do not allow accurate comparisons. Some responses may be difficult to justify and they can offer useless or irrelevant information. Questionnaires are not suitable to sensitive questions and often require additional processing. Some of these pitfalls occurred with the data collected from my questionnaires.

Some of the problems associated with questionnaires can be overcome by the inclusion of open-ended questions. As the concept of self-coaching had not been researched previously, the open-ended questions were vital in this questionnaire. They allowed for a wide variety of answers from the respondents permitting an ontological research approach. It was very time consuming to sift through the amount of information received. Several responses were presented only once but these 'rogues' were considered too important to be left out of the data.

No motivation or inducement was offered for respondents to participate in this research. The only incentive to complete the questionnaire may have been the respondents' interest in the outcomes of the research. In Part C Comments (see Appendix 1), respondents were asked to write any further comments they had on self-coaching. Responses received included: "Thanks Trish!" (HI); "Very good questionnaire enjoyed it. Thank you" (BI); and "I would like a copy of this questionary [sic] for my coach if possible. Thanks" (SS) indicating their interest in the topic. Also, the majority stated that they wanted a summary of the results. This suggests that this questionnaire or the covering letter managed to incorporate the epistemological approach in that there was some degree of interaction between the respondents and the researcher.

The literature strongly suggested that a pilot study of the questionnaire was essential (de Vaus, 1995; Fowler, 1992). The purpose of the pilot study in this case was to test the sampling strategy, the distribution and collection mode, the time required to complete it, the assessment of the responses and response rates, the comprehension, the structure and ease of completion and the assessment of the responses for coding, data processing and analysis. Bias may be introduced if the questionnaire is interpreted incorrectly so clarity and simplicity were important (de Vaus, 1995).

To minimise the potential for bias and to allow for modification of the questionnaire, it was piloted three times on a selection of male dyadic sport teams (from October through to December 1995), on the women participants of the 1995-1996 Pro Beach-Volleyball Tour (over the late December early January period) and on the 1997 World University Games team (in September of that year). The World University Games, a multi-sport event similar and next in size to the Olympic Games, comprised a variety of sports similar to those of the Olympic Games.

For the first two pilots, the questionnaires were personally distributed to the respondents and collected after completion. The third pilot study, a re-designed version of the questionnaire, was posted to members of the 1997 World University Games team, employing the same procedure to be used when posting the questionnaire to the 1996 Olympic team members. I was the Chef de Mission of the 1997 World University Games team and, therefore, had access to their addresses. While at the Games I verbally informed the athletes that I would be posting them a questionnaire as a final pilot study for my Doctoral research. As university students many of the athletes were familiar with academic research, and with my research in particular, as we had discussed their self-coaching experiences and strategies.

I was present while the first two pilot questionnaires were being completed, making the epistemological assumption a reality. It was advantageous to observe and talk to the respondents so immediate feedback could be received on the topic questions, comprehension and any other problems experienced in completion of the questionnaire. Some felt that the questionnaire took too long to complete although the average duration was 22 minutes. I believe there were two reasons for this. As these athletes were not all of elite status and many of them were not familiar with the idea of self-coaching, they did not know how to respond to the questions. Secondly, in an attempt to find out as much as possible about their views of self-coaching many of the questions were open-ended. The questionnaire was later modified to supply a larger selection of closed questions to decrease the amount of time required to complete the questionnaire and to assist the respondents in completing a questionnaire on an idea they had perhaps previously thought very little about. This departure from the ontological research perspective was expedient, but unfortunate.

Other changes to the questionnaire were made as a result of the pilot studies. The number of questions was decreased from 32 to 21. Most of the questions removed were from the demographic section. Four questions were eliminated from the section relating to experiences with a coach. There were minor revisions to the wording of some questions and to the order in which they were asked. A question seeking characteristics of self-coached athletes was re-written as a closed question. Other closed questions were also integrated into the questionnaire. Overall, the pilot studies allowed for the questionnaire to be re-designed to gain more structured information on the idea of self-coaching. The re-designed questionnaire was vastly improved in terms of providing the data needed for a quantitative analysis in that pre-coding was used in most instances.

The questions in the final six-page survey (see Appendix 1), administered to the 97 members of the 1996 Olympic team, contained three sections. The first section investigated background demographics, the second more general information on coaching experiences, while the third section sought more specific information on self-coaching experiences. The last page of the questionnaire, Part C Comments, provided space for the respondents to write anything else they wished to express on self-coaching.

The covering letter (see Appendix 1) informed the Olympians of the purpose of the study, introduced the researcher and the topic being studied and included instructions for completing the attached questionnaire. Self-addressed, reply-paid envelopes were included in the mid November 1997 posting to encourage and facilitate responses. A reminder letter followed the initial posting three weeks after the requested return date. A final letter and the same questionnaire were then posted in mid January 1998 as an ultimate request and reminder. The last reminder was not sent until mid January so as to avoid the Christmas period.

The types of question included in the questionnaire were primary questions, contingency questions, secondary questions and open- and closed questions. These types of question were chosen as they best provided the information that the questionnaire had sought to reveal. Primary questions elicit information directly related to the research topic and contingency questions offer the basis for further questioning and for more details respectively. Secondary questions do not add new information, but check the consistency of opinions or reliability of the instrument. Open-ended questions allow freedom to express feeling and thoughts, offer more details than pre-coded questions (information that might not have been foreseen by the researcher), allow conclusions about the respondent's way of thinking and logic and provide opportunities for the respondent to answer in their own way, using their own words in the

way they consider most appropriate. Closed questions offer fixed responses with a selection of options provided.

4.2.2 The Interview Process

Semi-structured interviews were conducted to gain information about the participants' personal experiences and thoughts about self-coaching. "Semi-structured interviews refer to a research approach whereby the researcher asks questions about a given topic but allows the data-gathering conversation itself to determine how the information is obtained" (Graham, cited in Bell and Roberts, 1984, p.281). Bell and Roberts (1984) defined them as a data gathering technique which offers researchers access to people's ideas, thoughts and memories in their own words rather than in the words of the researcher.

Interviews provide exploration of opinions and rich qualitative data. I followed a semi-structured format to allow the conversation to flow and be expanded within the parameters of the research. The interviews were loosely structured dialogues in which the respondents were given the freedom to reconstruct their involvement in their sport and in the context of their self-coaching experiences. They were designed to solicit as much information as possible on the interviewees' experiences and ideas about self-coaching.

The interview questions evolved from the review of the literature, my experiences and a reading of the responses to the questionnaire. Broad areas of the interview schedule included demographics, background to their involvement and development in sport and their sporting lives, coaching expectations and experiences, and their self-coaching experiences and thoughts. The interview questions for the 1996 Olympians and the previous Olympic medal winners were basically identical except for a few initial questions about the medal winners'

sporting backgrounds (see Appendices 3 and 4). Respondents were also given the opportunity to provide any other information on self-coaching which they felt had not been addressed.

The interview schedule was piloted during January and February 1998 on academic colleagues and elite level non-Olympic friends of mine who participated in Olympic sports. Minor changes were made to assist with the flow of information and the clarity of the questions. Following this the interview research commenced.

I conducted each of the 36 interviews with the questions being open-ended. I telephoned each interviewee to organise a mutually convenient time for the interview to be held. They generally took place in people's homes, place of employment, training site or in my hotel room. They were held between February and July 1998 and lasted from 45 minutes to 115 minutes with the average time being 60 minutes. I preceded the interviews by distributing the research information sheet and consent form (see Appendix 2), providing an overview of the purpose of my research, why I thought this area of research to be significant and how it might benefit the development of self-coaching and future Olympic athletes.

It was apparent that athletes who had competed in an Olympic Games between 1984 and 1996 were more familiar with the idea of self-coaching than those who had competed in Games previous to this period. Those Olympic athletes competing prior to 1984 were more of the opinion that "we just did it", even though they reported that most of them "just did it" without the assistance of a coach. They were not sure what they actually "did", but had success from their actions.

As described, these interviews followed a written set of questions, followed by probing questions when necessary. Prompts and probes allow the researcher to gain interviewee perceptions beyond the immediate response supplied. "Careful listening allows the interviewer to introduce new questions and prompts as the interview proceeds allowing the interview, the interviewer, and the research study to become interviewee oriented" (Bell and Roberts, 1984, p.21). Prompts and probes were especially required for the early Olympic medal winners as many of them were 'scared' of a concept entitled self-coaching even though many of them had gained success in their athletic careers without the assistance of a coach. They were unfamiliar with the term of self-coaching and therefore prompts were often given, allowing more relevant information to be provided.

All respondents were asked the same questions in the same order, allowing minor deviations if more data could be extracted. The questions were designed to expand on the information received in the questionnaires completed by the 1996 Olympians and to retrieve as much information as possible about their athletic development and self-coaching experiences.

Whyte (1984) believed that to become a competent interviewer, the interviewer needed to be empathetic, alert and non-judgemental. Interviews are conducted in a social and interactive setting, involving human emotions and relationships and it is probable that in the course of any study unconscious distortion may take place (Denzin, 1978). The potential for inaccurate interpretation by the interviewer is apparent; therefore, much depends upon the skill with which the interviews are conducted, recorded and later transcribed.

As the interviewing process occurs in a dynamic environment, being able to maintain a constant and reliable level of these qualities is difficult but necessary. As an interviewer I was

understanding of their time constraints in regards to the interview length and their busy lives. I could empathise with some of the problems experienced either with their coach, which sometimes led to their decision to self-coach or their problems in having to, or choosing to, self-coach. As my experience of interviewing improved, I believe the environment in which these occurred became more comfortable and relaxed. This allowed better opportunities for prompting questions and for valuable self-coaching information to be gained.

The potential to distort the interview material may occur in recording the volumes of data obtained from the interview process. To minimise this potential, with the permission of the interviewees, audiotape and detailed note-taking recorded the interviews providing a full record of the dialogue. The audiotapes were transcribed verbatim, including my questions and comments as suggested by Bogdan and Biklen (1982), by a contracted transcriber and minimally by Massey University's Department of Management and International Business Secretary. Once the tapes had been transcribed I cross-checked the interview transcriptions and notes as I did interview tapes and transcripts.

The interviewees were asked whether they wished to review the transcriptions to ensure they said what they thought they had said or wanted to say and for accuracy of content and transcription. If they did, the transcripts were posted along with a self-addressed reply-paid envelope and a letter stating a reply deadline date. Only minimal changes, generally spelling of names and minor grammatical corrections, were made. Only three interviewees made short additions to the transcripts.

I attempted to have the tapes transcribed immediately following each interview or series of interviews, but this was not always possible due to time restrictions for each transcriber. I

would travel to such places as Wellington, Christchurch and Nelson and provide the transcriber with the audiotapes upon my return.

Patton (1990) and Tesch (1990) felt that the challenge of qualitative data analysis was to first understand the large amounts of data collected from the respondents and to then identify the significant findings to construct a results-framework outlining those findings. These challenges were experienced in this study. The essential elements of self-coaching were determined by reviewing the transcripts of the interviews and then referring to the responses to the open-ended questions in the questionnaire.

Self-coaching categories were constructed so as to be independent, exhaustive and mutually exclusive (Sarantakos, 1993). The data were reduced into categories and defined dependent upon the terms utilised by the research participants. These categories were defined in the form of words, themes and statements. In order to determine the reliability of the categories or themes exposed, concept mapping was used. "Experts" were required for the concept mapping and these "experts" were the interviewees themselves. They were asked to define and group the categories independently, as explained below.

4.2.3   Concept Mapping

Concept mapping was incorporated into the research study to clarify or group responses in relation to the certain key concepts of self-coaching. Lamnek (1988) considered six methodological principles one of which is flexibility meaning that changes can occur throughout the research process. Flexibility is considered an advantage as the researcher can engage in supplemental and beneficial research procedures taking whatever direction is necessary. Flexibility was significant in this study as the usefulness of concept mapping was

not recognised initially. The range of responses from the interviews supplemented by those from the questionnaire brought the realisation that concept mapping would be a beneficial addition to the research design. I did not realise this when initially developing the design. I only saw and realised this possibility once the research had progressed.

Concept mapping is a conceptual method or strategy with which an individual or a group can pictorially describe their ideas on a specific topic in map format. The concept map clearly displays all their major ideas and their perceived inter-relationships of these ideas (Duttweiler, 1991; Trochim, 1993b). Data from the questionnaire and interviews were summarised and entered into the concept mapping programme to display quantified relationships of that data as an end result.

Trochim (1989a) defined concept mapping as:

> a pictorial representation of the group's thinking which displays all of the ideas of the group relative to the topic at hand, shows how these ideas are related to each other and, optionally, shows which ideas are more relevant, important, or appropriate (p.2).

It is a hybrid methodology which allows data (words and interpretations) generated from the participants involved:

> to be structured for and by multiple statistical analyses, which is then provided as an output (concept map) which maintains participants' own words and conceptual cluster names. Concept mapping can be said to combine the 'hard' science of statistics with the 'art' of human interpretation (Kolb and Shepherd, 1997, p.293).

That is, the participants brainstorm the ideas, decide how these ideas are perceptually related (sorting), grade each item on a supplied scale (rating), interpret the results after they have been analysed and decide how the map is to be used.

Concept mapping has an array of advantages and limitations. It is participant-oriented in that all participants have input to the final product, which is expressed in the language of the participants and not that of the researcher, as required by the rhetorical approach to research. It is a structured process that follows six specific steps (see Table 4.1, pp.98) that a facilitator guides the individual or group through. It is considered to be a powerful tool that is simple and intuitive enabling complex problems to be solved or understood. All data is computed by the Concept System version 1, a specialised computer programme which efficiently analyses the data and develops the resulting maps. The limitations deal mainly with the technical aspects of computer literacy and the software itself. The software is user friendly and is accompanied by a tutorial programme but many hours of trial and error are required to master its usage and for a feeling of comfort to be achieved. The data entry and computation process is time consuming and computed maps cannot be saved and therefore must be re-generated each time a map is to be viewed again.

Concept mapping was originally developed as a management planning and evaluation tool but its use has since expanded to articulate theory, build frameworks and develop strategies or operational plans (Trochim, 1993a). Concept mapping may be used to:

- develop an understanding of a body of knowledge
- explore new information and relationships
- access prior knowledge
- gather new knowledge or information

- analyse qualitative data
- share knowledge and information generated
- design structures or processes such as written documents, constructions, web sites, web search, multimedia presentations
- problem-solve options (Concept Map, n.d.).

Concept mapping is based on the rating and sorting of statements or phrases, which are called items. The items for the concept mapping exercise evolved from the questionnaire and interviews with the 1996 Olympians and the past Olympic medal winners. No limitations were set as to the number of items each respondent could put forth during the interviews in regards to self-coaching and the specified themes, but the maximum number of items suggested for the concept mapping programme was 100 (Trochim, 1989a). Initially 36 Olympians were interviewed. As one had since died, 35 were posted items relating to the six themes of define/describe self-coaching, define/describe formal coaching, identify characteristics/qualities of athletes who self-coach, identify reasons why athletes self-coach, identify strategies to enhance self-coaching and identify steps/guidelines for self-coaching. Each Olympian received a grouping of items for a single theme. The 'define/describe formal coaching' theme went to five Olympians while the remaining five themes went to six Olympians each (5 x 6 + 5 = 35).

Each interview respondent independently rated and sorted the supplied items (see Appendix 5). Participants were asked to rate an item from 1-to-5 according to its perceived importance or effectiveness in relation to the other items associated to the theme they received. A rating of 1 indicated that the item was relatively unimportant in comparison to the rest of the items, a 3 meant that it was moderately important and a 5 meant that it was extremely important. The rating scale was specific to each theme in relation to its significance as an element of that

theme. Participants were provided with a rating sheet on which they were instructed to write their rating for each specific item.

Participants were also asked to sort the items into concept groups that they perceived to be similar or related in some way or that made sense to them. To do this participants were supplied with individual cards with each item typed onto the card so that they could physically sort them into groups. They were told they could have a concept group with only one item in it or have several concept groups with a various number of items but they could not place all the items into one concept group. Hirschberg and Humphreys (1982) stated, "The basic feature of the sorting method in multivariate research is that subjects are free to partition a set of inter-related objects into categories of their own making" (p.118). Participants were provided with a sorting sheet on which there were numbered boxes (one box per concept) in which they were instructed to write the individual numbers of the grouped items.

The ratings and sortings were statistically analysed by the computer programme, the Concept System, version 1.0, 1993 developed by W.M.K. Trochim in 1987. Trochim's concept mapping procedure utilises qualitative interpretative techniques and quantitative statistical data analysis involving two multivariate techniques.

The first is multi-dimensional scaling (MDS). MDS is a geometrical or spatial representation of points on a map known as the point map. It represents the items under investigation and their inter-relationship which is indicated by the distances between all items on the map (Everitt, 1993; Kruskal and Wish, 1978). In multi-dimensional scaling, configurations of 1-to-5 dimensions may be developed but a two-dimensional configuration, which is easy to

display and is most appropriate for concept mapping, especially when combined with cluster analysis (Kruskal and Wish, 1978; Trochim, 1989a). The unstructured sort-data gathered from all the participants is analysed by the MDS computer programme and the point map is developed. Items that were sorted together most often are considered similar and are therefore located closer together on the map. The distance between the points indicates the degree of the inter-relationship among them. Therefore items are more inter-related when the points representing these items are closer together on the map.

The second multivariate technique is hierarchical cluster analysis. In hierarchical cluster analysis the outcomes of the multi-dimensional scaling (the points on the point map) are broken down into groups or clusters which are presumably similar. The cluster analysis, in effect, is forced "to partition the MDS configuration into non-overlapping clusters" (Trochim, Cook, and Setze, 1994, p.770). These groups or clusters contain items, which are considered to reflect similar thoughts or to be inter-related. The Concept System programme automatically decides on the number of clusters to be created but solutions for a higher and lower number of clusters, are also developed and examined for each separate theme, to identify whether or not the cluster merger/split is substantively reasonable and sufficiently detailed. "Substantively reasonable" and "sufficiently detailed" means that the clusters contain common items, which are not too broad, too contradictory or too highly dissimilar to one another.

The Concept System programme produces a variety of different maps including the (MDS) point map, the cluster map, the point or cluster bridging map and the point or cluster rating map. As mentioned, the basis of all concept maps is the (MDS) point map. Each point represents an item and is spaced or located in relation to other points on the maps based on

the participants' interpretation of the items' similarities or differences. Items that are located in the same place, next to each other or overlapped are sorted together more frequently which suggests that they are very similar in content and therefore related as perceived by the respondents. Those that are located farther apart are sorted together less frequently and are perceived to be different and not inter-related. A cluster map shows how similar or related items are grouped together. The proximity of these clusters on the map indicates the conceptual closeness or divergence of the clusters. Clusters closer to each other have more in common than those that are located further apart or at opposite ends of the map. Each cluster is examined in regard to the items contained within it and what the grouping of items represents as a concept. The number of items included in a cluster determines its size. The shape of a cluster will vary and has no meaningful interpretation. The map can be rotated in any direction without changing the distances or interpretations among the items or clusters.

A point or cluster bridging map can be constructed for analysis of the relatedness of each item within a cluster or of each cluster itself. A bridging value is given for each item and a cluster bridging value is the average of the bridging values for all the items included in a cluster. An item bridging value measures the extent to which an item is sorted with other surrounding items. A point bridging map indicates the relatedness of each item to other items, using a vertical column in the third dimension, displayed on the map as 1-to-5 blocks, to display the bridging values of each item. The high block columns indicate a high bridging value, whereas the low block columns indicate a low bridging value. A high bridging value indicates that an item is closely related to surrounding items, whereas a low bridging value indicates a weak relationship to the surrounding items.

A point rating map or a cluster rating map can also be constructed. They show the average rating values for each item by point or by cluster. A point rating map, for example, indicates the importance of a specific item. A vertical column in the third dimension of 1-to-5 blocks indicates the average rating value of each item. The high block columns indicate a high average rating whereas the low block columns indicate a low average rating value. A cluster rating map reveals the importance of the items in a cluster based on the number of tiers or borders in the cluster. The maximum number of tiers or borders, five, indicates a relatively high average cluster rating value, whereas only one tier or border indicates a low cluster rating value. A one tier cluster suggests that the items in the cluster are less critical to the theme being considered.

The six steps of the concept mapping process are defined and described in Table 4.1 below.

General Steps	Process	Research Activity
Step 1 Preparation	Select the participants Develop the focus Develop the schedule	13 1996 Olympians and 23 past Olympic medal winners Self-coaching (6 themes) developed between February and July 1998
Step 2 Statement Generation	Brainstorming session	Semi-structured interviews generated the statements (items) Develop/print sorting and rating cards
Step 3 Structure the Statements	Sorting of statements into concepts and rating of the statements	Each theme posted to several participants for sorting and rating
Step 4 Map the Statements		Data entered into "The Concept System" programme and pictorial maps developed
Step 5 Interpret the Map	Interpretation session	Maps evaluated, interpreted and labelled by the researcher, 1 sport psychologist and 7 academics
Step 6 Use the Map		Implementation and utilisation

Table 4.1:   Steps in the Concept Mapping Process (Adapted from Trochim, 1993b, p.16)

4.2.4 Triangulation

Self-administered questionnaires, semi-structured interviews and concept mapping were employed to generate self-coaching concepts and "the essence" of self-coaching. This mix of methods was designed to enhance validity using the respected research practice known as triangulation. Denzin (1989) offered the generic definition of triangulation as the combination of methods to study the same phenomena. The use of multiple methods makes a study rich as it is approached from different research angles (Ristock and Pennell, 1996). It is based on the axiom that each method reveals varying aspects of empirical reality; therefore, multiple methods of data collection are beneficial. The premise of triangulation rests on the premise that the deficiencies of one method will be compensated by the counter-balancing strengths of another (Denzin, 1989; Jick, 1979; Robson, 1996; Sarantakos, 1993).

The most popular type of triangulation, the "between method", is largely a vehicle for cross validation when two or more distinct methods are found to be congruent and yield comparable data (Denzin, 1989) as the questionnaires, interviews and concept mapping did in this research. If different sources of data collection indicate the same thing then there is more evidence or confidence that the findings are valid and therefore researchers can improve the accuracy of their judgements and enhance the understanding of the research (Sieber, 1982). "Validity is claimed because replication of the findings by different methods minimizes the possibility that the findings may be the result of particular measurement biases" (Bloor, 1997, p.38). The quality of the data and the accuracy of the findings can be greatly enhanced as discrepancies or cross-validations can be noted. Validity has been achieved through triangulation in this study but the type of inquiry conducted has also increased the validity of the results.

Denzin (1989) noted criticisms of triangulation. When using the "between method" each method will generate different viewpoints, pictures and interpretations. The important point though is that these differences be allowed to emerge. Fielding and Fielding (1986), cited in Denzin (1989), stated that methods and theories should be combined with the intention of adding breath or depth to the analysis. Triangulation was used in this research to broaden the interpretative research approach.

4.2.5   The 'I' - the Value of my Experiences

My experiences, interest and knowledge of elite sport and self-coaching helped me build relationships with the research participants and construct and interpret the data. I had a strong personal interest in the topic due to my experiences of being an athlete, coach, team manager, administrator and academic. These experiences allowed me to "be inside" all phases of the research process. My experiences impacted upon and were beneficial in understanding and explaining the experiences of those involved in the research. Introspection, self-reflection and sharing of my experiences were inevitable. But despite all my experience, I was not the expert: the 'experts' were the elite athletes themselves. Because of this understanding I was able to take advantage of the qualitative research paradigm to produce quality research.

In addition, my personal experiences are highly related and beneficial to the understanding and interpretation of this research. Strauss (1987), cited in Court (1989), exhorted "Mine your experiences. There's potential gold in there" (p.56). Bell and Newby (1977) and Roberts (1988) see this technique as a form of validating research. Denzin (1997) supported this. He stated, "...writer's personal experiences are worth sharing with others" (Denzin, 1997, p.225). I felt my experiences were "mineable" and I used them for validation purposes at all stages of this study.

In a highly transparent process the researcher shares power, knowledge and experiences with the research participants. This calls for collaboration, non-exploitation, mutual respect and belief in the relationships being developed. A dialectic develops between the researcher and the participants labelled "inter-subjectivity"; and this is the reciprocal sharing of the researcher's and participants' experiences (Weskott, cited in Cummerton, 1986). This relationship was achieved in this research. Trust, respect and confidence were gained as I revealed, through my experiences in the sport environment, who 'I' was. The research participants responded by unlocking the enigma of self-coaching for me.

4.3   RESEARCH ETHICS

Ethical responsibilities are intended to protect the subjects being researched, the researcher and, in this instance, Massey University. Ethical responsibilities rest primarily with the researcher. In this research, peer review and approval by the Massey University Ethics Committee provided further guidance and evaluation. The participants were not subjected to research potentially harmful to their physical or mental health or to unresolved ethical issues raised by peer review or the University Ethics Committee. Certification of ethical approval from an external agency or another ethical committee was not required. As a matter of courtesy I forwarded a copy of the questionnaire, the information sheet, the consent form and a copy of the interview questions to the NZOC Secretary General for review.

Massey University's "Code of Ethical Conduct for Research and Teaching Involving Human Subjects" was adhered to during this research. The major ethical aspects considered were written informed consent, confidentiality, open access to results, truthfulness, trust, anonymity, non-disclosure and advocacy. Participants were told the purpose of the research, their role in it, the reason for their selection and how the data would be analysed and utilised.

The questionnaire respondents were provided with the ethical aspects and parameters of the research in the one page covering letter accompanying the questionnaire (see Appendix 1). It provided a comprehensive explanation of the nature and purpose of the research, the respondents' right to withdraw from the research at any time, confirmation of privacy and confidentiality and information about the use of the research results. It was significant that the participants felt comfortable and assured in knowing that any information disclosed would not be dispersed to outside parties. This was particularly important where the sole participant in a particular sport might have felt compromised by being easily recognised. The participants were informed that the results of the research would be available to them and to any other person whom they wished to receive those results. They were provided a detachable form to confirm whether they wanted the results. It was suggested that they send this form under separate cover to ensure anonymity.

Similar information was also provided on the information sheet and consent form for the interviews of past Olympic medal winners (see Appendix 2) so that they were able to make an informed decision regarding their participation. They were informed that someone other than myself would transcribe the interview tapes. I did not have the transcribers sign a non-disclosure contract, but I did discuss the significance of confidentiality with them. In retrospect, it would have been appropriate to have had written confirmation of this conversation with each of the two transcribers. This entire process was undertaken to ensure that there was a mutual understanding of the research and activities to be undertaken.

The completion of research in an ethical manner is of substantial significance. Areas of ethical concern include the possibility that the researcher becomes too involved in research-related issues, confidentiality, problems associated with publishing of the information gained,

inappropriate data collection techniques and a lack of distinction between the data and its interpretation by the researcher (Merriam, 1988). I tried to avoid any of these occurring by reading about questionnaire and interview etiquette and by offering the research participants the opportunity to review transcripts of their interviews and my thesis drafts to ensure that information had been interpreted and conveyed correctly.

4.4   SUMMARY AND REVIEW

This chapter presented the methodological perspectives and methods used in the investigation of Olympic athletes' self-coaching thoughts and experiences. It began with an overview of the entire chapter including a map outlining the research process followed by a description of how the research evolved. The research questions were reiterated in this section and the procedure for participants' selection was explained. Next, the methodological perspectives (under a qualitative paradigm) and the research methods used were discussed. The importance of questionnaire design, interview protocol and concept mapping procedures were emphasised as a means of validation by triangulation and the value of the researcher's personal experience was recognised. Finally, ethical guidelines considered and procedures implemented concluded the chapter. It was necessary to explicate this chapter in detail so that the research process was explicit for end users of the self-coaching management tool, or for other researchers who might wish to replicate parts of or the whole study, or to carry out comparative work.

CHAPTER FIVE

RESULTS

You are the architect of your personal experience (Shirley MacLaine).

5.1   OVERVIEW

This chapter reports results from the self-administered questionnaires, the semi-structured interviews and the concept mapping exercise. Observations, anecdotes and comments are also presented which were gained from participant observation, the life histories-herstories and the document analysis.

From the mail out to the 97 members of the 1996 Summer Olympic Games team, 45 questionnaires were returned, which equates to a 46.4% response rate. Deducting the 10 no-contacts the response rate was increased to 51.7%.[5] Michael Hooper, Secretary General of the NZOC, expected that his organisation would receive a response rate between 55-60% when surveying members of a Summer Olympic Games team or a Commonwealth Games team. "What we do is to chase up those who haven't responded. We usually find direct contact gets better results" (M. Hooper, personal communication, 11 August 1998). While the NZOC is able to do this, my ability was limited by the 1993 New Zealand Privacy Act. I did refer to the various telephone directories and national sport organisations in an attempt to obtain contact details where required.

This chapter also reports the findings of the, on average, 60 minute semi-structured interviews recorded between the researcher and 23 Olympic Games medal winners from the

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[5] No forwarding addresses were supplied for those Olympic athletes that had a change of address and the questionnaires were returned.

1956 Summer Olympics in Melbourne (Australia) to the 1996 Summer Olympics in Atlanta (USA) and 13 1996 Summer Olympians. Of the medal winners, 4 were female and 19 male representing the Olympic sports of athletics, canoeing, equestrian, field hockey, rowing, swimming and yachting. Of the 13 athletes from the 1996 Summer Olympics, who had also completed the self-administered questionnaire, 5 were female and 8 male. They represented the sports of archery, athletics, badminton, cycling, rowing, shooting, swimming and yachting.

Concept mapping was utilised to have the 35 interviewees (1 of the 36 passed away during the course of the research) sort and rate the responses (items) describing the six themes relating to self-coaching. These themes were of the following kind: define/describe self-coaching, define/describe formal coaching, identify reasons why athletes self-coach, identify characteristics/qualities of athletes who self-coach, identify steps/guidelines for self-coaching and identify strategies to enhance self-coaching. Responses were received from 30 (85.7%) of the interviewees. Quantified relationships, shown pictorially, were the end result.

My personal participant observation experiences and document analyses from books and newspaper, journal and magazine articles were utilised to support or extend aspects of the results presentation and discussion.

5.2   QUESTIONNAIRE AND INTERVIEW RESULTS

5.2.1   Demographics

Of the 45 questionnaire respondents 15 were female (33.3%) and 30 were male (66.7%). The total number of Olympians interviewed was 36. Thirteen of these were 1996 Olympians of

whom 5 were female (38.5%) and 8 male (61.5%). Of the remaining 23 Olympic medal winners 4 were female (17.4%) and 19 were male (82.6%).

As per Tables 5.1 and 5.2 below, 21 (46.7%) of the questionnaire respondents were employed, 2 (4.4%) were unemployed, 8 (17.8%) were students and 11 (24.4%) were professional athletes. Twenty-one (46.7%) of these athletes worked full-time and 16 (35.6%) worked part-time. Of the 23 past Olympic medal winners who were interviewed, 20 (87%) worked full-time and 3 (13%) were retired.

Employment Status	Frequency
Student	8
Employed	21
Professional athlete	11
Unemployed	2
No response	3
Total	45

Table 5.1: **Questionnaire Respondents' Employment Status**

Employment Status	Frequency
Full-time	21
Part-time	16
No response	8
Total	45

Table 5.2: **Questionnaire Respondents' Employment Status**

5.2.2 Olympic Sport

The 45 questionnaire respondents were from 11 different sports as per Table 5.3 below. New Zealand was represented in 15 of the 26 sports on the 1996 Summer Olympic Games programme. Cycling had the largest response rate at 10, swimming followed with 8, athletics

with 7 and rowing and yachting next with 6. The remaining sports received 1 or 2 responses.

No questionnaires were received from the other 4 Summer Olympic sports of boxing,

canoeing and tennis (with 1 athlete each) and judo (2 athletes).

Olympic Sport	Questionnaire Frequency	Interview Frequency	Concept Mapping Frequency
Cycling	10	2	2
Rowing	6	10	8
Athletics	7	5	5
Beach volleyball	1	0	0
Swimming	8	3	3
Yachting	6	4	3
Shooting	2	2	1
Equestrian	1	1	1
Archery	1	1	1
Badminton	2	2	1
Table tennis	1	0	0
Canoeing	0	2	1
Field hockey	0	4	4
Total	45	36	30

Table 5.3:   Sample Distribution in Relation to Olympic Sports

As many of the 1996 Olympians are still competing, the low questionnaire response rate

(51.7%) may be attributed to the fact that they were out of the country competing or training

at the time of distribution. I received letters from family or household members informing me

of this. As well, the 1993 Privacy Act dictated that the questionnaire be posted from the

NZOC's national office in Wellington. I was unable to verify correct postal addresses for the

athletes and am unsure of the exact number of athletes who actually received the

questionnaire. Ten envelopes were returned noting "no forwarding address" or "no longer at

this address." One of the cyclists wrote to me requesting that a questionnaire be posted to him

after a team-mate told him about having received one. This particular athlete had a change of

address and did not inform the NZOC.

The 23 past Olympic medal winners interviewed came from the sports of athletics (3), canoeing (2), equestrian (1), field hockey (4), rowing (9), swimming (1) and yachting (3). The 13 1996 Summer Olympians interviewed, who also completed the questionnaire, came from the sports of archery (1), athletics (2), badminton (2), cycling (2), rowing (1), shooting (2), swimming (2) and yachting (1).

Sorting and rating sheets for the concept mapping exercise were sent to the 35 of the 36 Olympians who participated in the interviews. One of the yachting athletes had died since the commencement of the research. Thirty responses were received from the sports of athletics (5), archery (1), badminton (1), canoeing (1), cycling (2), equestrian (1), field hockey (4), rowing (8), shooting (1), swimming (3) and yachting (3).

5.2.3 Training Basis

In the questionnaire, the 1996 Olympians were asked whether they trained in general on a full-time or part-time basis. Twenty-five responded that they trained full-time (55.6%) and 19 part-time (42.2%) with 1 non-response (2.2%).

Of the past Olympic medal winners and 1996 Olympians interviewed, 10 trained full-time (27.8%) and 26 trained part-time (72.2%). When asked in the interview how many hours they trained a week, one athlete replied, *"I trained 24 hours a day. Everything I did was for the Olympics. Everything - I ate, everything - I slept, I rested, I trained, I sailed, I went to the gym - everything was for the Olympics"* (TG).

Part-time training was a far more prevalent trend for the interviewees, especially for the past Olympic medal winners, amongst the questionnaire respondents as full-time training was not

a consideration for most of them during their training and competition eras. Most of them worked full-time and trained before and/or after work. Of the 10 interviewed athletes who trained full-time, 2 of them competed up to and including the 1992 Olympics while the other 8 athletes competed in the 1996 Olympics. Of the 26 who trained part-time, 3 of them, who competed in the 1996 Olympics, stated they trained full-time leading up to an Olympics.

5.2.4   Coaching Experience

Table 5.4 below shows that of the 45 questionnaire respondents, 28 had been a coach from the social-beginner level to the national-international level. The interviewees were not asked if they were currently coaching or if they had any coaching experience.

Level of Coaching	Frequency
Social	1
Beginners	5
School	7
Club	5
Senior	3
National	2
International	4
Masters	1
No response	17

Table 5.4:   Questionnaire Respondents' Level of Coaching

In Table 5.5 below, 13 respondents who considered themselves self-coached had been a coach, while 6 of whom self-coached, had never been a coach. The 3 respondents who did not consider themselves self-coached had never been a coach either. Of the 23 respondents who indicated they sometimes self-coached, 15 had been a coach and 8 had not. It may be hypothesised that those athletes who had been a coach were more likely to self-coach or to

sometimes self-coach. This evidence is not conclusive and requires further examination. It could be speculated that those athletes who had coaching knowledge and experience were better equipped to apply the learned coaching principles to their own training and development.

		Been a Coach		Total
		Yes	No	
	Yes	13	6	19
Self-Coach	No	-	3	3
	Sometimes	15	8	23
Total		28	17	45

Table 5.5:   Questionnaire Respondents' Considered Self-Coached versus Been a Coach

In the questionnaire, respondents were asked to describe three items or lessons they had learned from their coaching experiences, which would help them with self-coaching. Their responses are outlined in Table 5.6 below. Wide ranges of responses were given, which were reduced to aid in coding without losing the voice and thoughts of the respondents. The main points (those with frequencies of 6) were: translating thoughts to understandable words, everyone is different and motivated differently and concentrate on technique. The importance of going back to basics, being positive and confident and being self-reflective had frequencies of 5. To be disciplined followed next with 4 responses and to be realistic and to learn from observations, actions and feelings followed with 3 responses each. Some of these responses were somewhat contradictory when comparing the questionnaire responses to the interview question which asked respondents to select characteristics/qualities of a self-coached athlete and the question which asked for strategies which could enhance self-coaching. A positive attitude received only 4/45 (8.9%) responses in the question regarding the characteristics/qualities and being self-reflective as a strategy received 25/45 responses

(55.6%). Thus far my research results point to a positive attitude and being self-reflective as valuable tools for self-coaching and should have rated higher. However, they did not rate as highly as other specific questions regarding these ideas. More in-depth research would need to be conducted to gain conclusive evidence on these factors.

Coaching Experiences Learning	Frequency
Importance of going back to basics	5
Keep sport and training fun	2
Practicing safely	2
Feedback and other people's input is valuable	1
You can learn from observations, actions and feelings	3
Translating thoughts to understandable words	6
Tolerance and understanding	2
Make notes to refer to	1
Time management	1
Be positive and confident	5
Everyone is different and motivated differently	6
Importance of organisation	2
Self-reflection	5
Be realistic	3
Concentrate on technique	6
Be disciplined	4
No response	18

Table 5.6:   Questionnaire Respondents' Learning Experiences from Coaching

5.2.5   Description of Formal Coaching

Questionnaire respondents were asked an open-ended question, "How would you describe the term formal coaching?" No restrictions were given as to the number of options for their reply. Their responses are located below in Table 5.7. The top 4 responses were described as coach sets the programme (20), workouts supervised and directions given by an outside person (16),

a qualified coach (14) and analysed by an outside observer (10). Other responses (with a lower frequency of 2 and 3 - respectively, - intermittent contact and the athlete carries out the tasks) come closer to what I would believe to be within the description of self-coaching and not formal coaching. Formal coaching implies, to me, the role of the coach is to be with the athlete at each training session and to guide and direct those tasks athletes ought to perform.

Description of Formal Coaching	Frequency
Analysed by outside observer	10
Directions given	16
Athlete carries out the tasks	3
Supervision of workouts	16
A qualified coach	14
Coach sets the programme	20
Intermittent contact	2
A plan to achieve goals	3
No response	1

Table 5.7: **Questionnaire Respondents' Descriptions of Formal Coaching**

When the interviewees were asked to describe what formal coaching was, 6 of the respondents had difficulty in defining or describing what they thought it actually was. A few of the responses started, *"How would I describe that? I don't know" (CG); "A bit hard - never thought about it before" (KD); "I don't know actually" (BM); "How would I define or describe coaching? Not sure but..." (NL); "That's a tricky one..." (OL)* and *"How would I describe it?" (DO)*.

A variety of descriptions or definitions of formal coaching was provided by the interviewees. The passing on of knowledge, information or experience accounted for 7 out of 18 responses (38.9%). The importance of it being a sound relationship was noted 9 times (50%).

Compatible with academic and practitioner definitions of coaching, the idea of coaching an athlete to the top level of performance or bringing them to the best of their potential was presented 10 times (55.6%). Surprisingly, coaching involving teaching was only mentioned four times (22.2%) and one respondent indicated that coaching did not include teaching. *"It is good if a coach doesn't have to do teaching as well but he* [sic] *is often in a situation where he* [sic] *does have to do teaching as well" (KH).* Many researchers have included teaching as a role of the coach (Anshel, 1990; Douge and Hastie, 1993; Evered and Selman, 1989; Gummerson, 1992; Holmes, 1980; Howe, 1986; Martens, 1987; Parsloe, 1995; Whitmore, 1994). Two other interviewees talked about teaching younger athletes the basic techniques of how to perform a skill to achieve the most out of the learning experience. These were the interpretations or intentions of coaching exhorted by the above authors.

Other interviewees (16.7%) felt coaching involved the coach spending time with the athlete during a training situation, but not necessarily being there all the time. A larger number (22.2%) thought that the coach helped the athlete solve problems or solved problems for the athlete. Three respondents related coaching to goal setting, devising a plan to achieve the goal and then implementing the plan. Some words used to describe a coach were catalyst, dynamic, experienced, supportive, a sounding board, open-minded and businessman [sic].

A good analogy for a definition of a coach was given as:

> *A coach should be a sounding board rather than the person who makes the music. The athlete should be making the music. The other person (coach) is the sounding board to say that you are slightly off key. You can get this a bit higher, or do you think you can get the note a bit lower? Or do you think you can make the rhythm a bit better? (ET).*

Four interview respondents included potential descriptions of self-coaching in their definitions of formal coaching. These respondents considered athlete empowerment and athlete self-responsibility. One interview respondent said:

> *The key is to be a mirror to allow the players to see themselves realistically and the coach's job is to put both the information and ideas in front of the players for them to be able to absorb and work with....I actually think the key to wanting to get players to improve is that they have to see themselves as others see them (QB).*

Another concurred:

> *Coaching at the elite level is about trying to get more out - more of the players coaching themselves in a sense. They have developed their flair and individual skills if you like, now it's a matter of making sure that the situation is such that the flair comes out....I also think the players themselves need to basically know as much as the coach, and be able to make some decisions for themselves on the field. In other words, they need to be in control of the total picture otherwise they are not going to be able to make those kinds of decisions (HD).*

Another respondent also supported this.

> *If you view the coach as a sort of catalyst...the catalyst will set the environment for the athlete to do the work and flourish, but the athlete has still got to do it all. The drive and passion and conscientiousness all have to be there, whether the coach is there or not and maybe the coached athlete - the one with the coach - might lack a little bit more confidence than the self-coached athlete (TN).*

Yet another followed this trend by saying, *"A coach is a guide for the athletes to develop themselves" (EK).* This respondent now coaches and uses reflective questioning so that the

athletes can learn to problem-solve and think on their own. Only 1 respondent felt that a coach should be a role model and another felt coaching was more of a mentoring role.

5.2.6   Description of Self-Coaching

As in Table 5.8 below, the highest questionnaire responses given for the description of self-coaching included athlete makes decisions on training (17), someone who thinks they know it all (15), taking ownership (14), critically analysing your performance (12) and coaching yourself (10). I would have expected coaching yourself to have the highest frequency. When discussing self-coaching with colleagues, athletes or friends, many substituted the term self-coaching with 'athletes coaching themselves'.

Description of Self-Coaching	Frequency
Critically analysing your performance	12
Athlete makes decisions on training	17
Someone who thinks they know it all	15
Taking ownership	14
Using other people's training methods	8
Coaching yourself	10
No outside assistance	5
Administer coach's programme to self	1
Using past experience	1
No response	2

Table 5.8:   **Questionnaire Respondents' Description of Self-Coaching**

"People who think they know it all" was also reported by several of the interviewees as a description of self-coaching. This may be considered as arrogant or egotistical but can also be interpreted as confident. Tongue, cited in Butcher (1994), believed arrogance to be a combination of success and confidence and, "to play at the top level, they'll need it in any

sport" (p.112). Confidence was highly rated (39/45) when the questionnaire respondents were asked to select the characteristics/qualities of a self-coached athlete. The questionnaire respondents who reported "having no outside assistance" as a description of self-coaching occurred only 5 times, which again I thought would have had a higher frequency. Many people I have spoken with in relation to this research take the term self-coaching quite literally believing that coaching is conducted only by the self, that is, only by the athlete themselves. But I believe it is important that a self-coached athlete seeks outside assistance from an advisor, coach, mentor or observer when, or if, required. It would be quite difficult to coach yourself without any outside influence or feedback at all. One of the 1996 Olympians supported this same idea by stating:

> *If we want to be great athletes ultimately we must be self-coached - that is - we must find our own resources within, trust them and take responsibility for them. That is not to say we shut off advice from others. But in the end, in an individual sport, you stand in the arena with nobody but yourself to depend on (MN).*

Kylie Carter, a world class aerobics competitor who coaches herself, supported the need for outside assistance.

> I'd love to have a coach as it does get really hard and it's always good to have that outside view of what you're doing. I try to have other people watching my routines and get as much feedback as I can (Hinton, 1998, p.B20).

Olympic beach-volleyball hopefuls Seuseu and Eade also supported this need. Their Olympic campaign, described as a "do it yourself" (Maddaford, 1999), has now gone beyond their own coaching. After slipping down the world rankings they made the decision to seek outside

assistance. "The first step in the Kiwi pairing getting things going in the right direction has been to enlist some expert help. They recently spent some time last month under the tutelage of a top Brazilian coach" (Hinton, 2000, p.B7). Seuseu continued to say, "That was really helpful. Until now we've pretty much coached ourselves. But I think we've got to get a bit more technical and we'll look to do it bit more of that" (Hinton, 2000, p.B7).

Questionnaire respondents were also asked in an open-ended question to state the 3 main disadvantages of self-coaching. A main disadvantage of self-coaching, reported 20 times, was seen as "no outside person to keep you on track". In addition, one person responded, " none - if you keep in contact with your advisors". Advisors are important and necessary in a self-coaching situation as athletes cannot do 'it' all on their own. Seuseu, Eade, and Carter all have made positive decisions to seek outside advice as it was required.

The responses supplied by the interviewees were quite interesting and are in Table 5.9 below. Twenty-one interview respondents suggested a definition of training yourself by setting your own goals, plans and training and then reviewing them to ensure the best outcome. Ten respondents suggested the ability to be self-analytical or self-critical. The next closest responses (6) were worded as: without outside help or a coach; coaching yourself; athlete takes control of everything; being a coach yourself; followed by the ability to be motivated and disciplined, independent or dedicated with 5 responses.

I did not relay my definition of self-coaching to the research participants during the interviews, as it would have biased their opinion or idea of what self-coaching was to them. Self-coaching may be considered as an athlete having "no outside assistance, what-so-ever" or it might also be considered as when the athletes are "only doing things on their own in the

absence of a coach." Currently this definition is not clearly defined and to add reliability and

validity to this and future research it needs to be. When developing an operational definition

of self-coaching it is important to take into consideration that outside assistance from an

advisor, coach, mentor or observer is part of self-coaching. The athlete would be the

individual who determined when this outside assistance should be sought.

Description of Self-Coaching	Frequency
Ability to motivate - be disciplined, independent or dedicated	5
Ability to be self-analytical or self critical	10
Teaching yourself- having a body of knowledge	3
Train by yourself - set plans, goals & training & review it - ability to get best out of self	21
Without outside help or a coach - coaching yourself athlete takes control of everything - being a coach yourself	6
Taking information from an outside source if needed	4
Coach may still be involved or present	4

Table 5.9:   Interview Respondents' Description of Self-Coaching

5.2.7   Do you Self-Coach?

In the questionnaire the 1996 Olympians were asked to answer yes, no or sometimes as to

whether they considered themselves self-coached. 19/45 (42.2%) said they self-coached, 23

(51.1%) said they sometimes self-coached, while only 3 respondents (6.7%) said they did not

self-coach.

They were then asked on average how often they self-coached per week and per year. As per

Table 5.10 below 27 questionnaire respondents said they self-coached between 1 and 24

hours per week. Four respondents self-coached between 25 and 36 hours per week and 1 self-

coached over 36 hours per week, which they actually reported as 70 hours. When asked how

many months a year they self-coached, (see Table 5.11), 10 replied 1 - 8 months per year and
24 replied 9 - 12 months.

Hours Per Week	Frequency
<8.00	9
9.00 - 16.00	9
17.00 - 24.00	9
25.00 - 36.00	4
>36.00	1
No response	13
Total	45

Table 5.10:   Questionnaire Respondents' Hours Per Week they Self-Coach

Months Per Year	Frequency
1.00 - 5.00	5
6.00 - 8.00	5
9.00 - 11.00	12
12.00	12
No response	11
Total	45

Table 5.11:   Questionnaire Respondents' Months Per Year they Self-Coach

Of the interviewees, 17 said they self-coached (of which 6 said they self-coached with the
assistance of an outside advisor). Seventeen said they sometimes self-coached or combined
formal coaching and self-coaching. Only 2 respondents said that they did not self-coach. The
interviewees were not asked the average amount of hours per week or months per year they
self-coached.

5.2.8 Do You Prefer to Self-Coach?

Questionnaire respondents, but not interviewees, were asked what their coaching preference was and the options given were, "self-coached, formally coached or a combination of both self-coaching and formal coaching." As per Table 5.12 below, 35/45 (77.8%) said they would prefer to have a combination of self-coaching and formal coaching, 8 (17.8%) said they would prefer to be formally coached, while only 2 (4.4%) said they would prefer to be self-coached.

Preference	Male	Female	Total
Self-coached	1	1	2
Formally coached	5	3	8
Combined (self- and formally)	24	11	35
Total	30	15	45

Table 5.12:   Questionnaire Respondents' Coaching Preference versus Gender

In support of a combination of self-coaching and formal coaching questionnaire respondents highlighted the following.

> *I believe the combination of self-coaching and the use of a mentor with some formal coaching (minimal) to be the best way as it allows and develops your ability to self-analyse / self-awareness* [sic] *so that if you end up in a difficult situation you can make decisions to bring about the best positive outcome rather than rely on someone to tell you what to do (CX).*

> *I believe it is important to undertake a cross-section of both self- and formal coaching. You cannot manage to compete at an Olympic level without a combination of the two. Without self-coaching you lack the ability to perform basic skill routines and also lose the ability to self-analyse and correct both physical and mental attributes. I see the main benefit in*

formal coaching is not so much the content or knowledge being passed on but the effect that formal coaching has on your mental state - being able to concentrate 100% on just your own skill level and not having to worry about timing, duration, content, etc., must mean great improvements. But as I said earlier, without the ability to "step outside yourself" and expose your shortcomings, i.e., self-analysis and self-coaching, benefits will not be shown (SI).

I believe that an outstanding athlete must have the ability to self-coach. Even when you do have a "proper coach" you must be able to analyse and apply what that "outside eyes" person sees (CM).

Crespi (1988) spoke about the leadership style of a coach and stated that supportive behaviour involved the athlete in a two-way discussion. The athlete is involved in decision-making and should be asked such questions as, "Should we work on...?, Would you prefer...?, How could I explain this so it would be more helpful?" (p.64). This would help meet the expectations of those athletes who prefer a combination of formal and self-coaching.

Table 5.13 below indicates in which Olympic sports the questionnaire respondents considered themselves to be self-coached, formally coached or sometimes self-coached. Due to the small sample size of this exploratory study, the results are inconclusive to indicate in which sports and which athletes are more likely to self-coach. It may be hypothesised that all sports may have athletes who either self-coach or prefer to self-coach but once again further research on a larger population will be required to confirm or negate this. It is also necessary to have a common definition of self-coaching with set parameters so that all responses can be based on equivalent criteria. One was not supplied to the participants in this study as one of the objectives of the study was to develop a definition of self-coaching. If a definition had been imposed on the research participants it would have defeated the purpose of creating a

definition using the voices and experiences of the people who had the practical knowledge and experience.

Olympic Sport	Self-Coach			Frequency
	Yes	No	Sometimes	
Cycling	3	1	6	10
Rowing	3	0	3	6
Athletics	4	1	2	7
Beach-volleyball	1	0	0	1
Swimming	1	1	6	8
Yachting	6	0	0	6
Shooting	1	0	1	2
Equestrian	0	0	1	1
Archery	0	0	1	1
Badminton	0	0	2	2
Table tennis	0	0	1	1
Total	19	3	23	45

Table 5.13:   Questionnaire Respondents' Olympic Sport versus Consider to be Self-Coached

Table 5.14 below provides some indication of which coaching preference athletes have in their chosen Olympic sport. 35/45 (77.8%) of the athletes preferred to have a combination of formal and self-coaching. This was predominant in the sample studied. Half of the swimming respondents preferred to be formally coached and the other half a combination of both. Thirty percent of the cyclists preferred to be formally coached while the remaining 70% preferred to have a combination of both. Once again the sample size was too small to make any conclusive statements in this regard.

Olympic Sport	Self-Coached	Formally Coached	Combined	Total
Cycling	0	3	7	10
Rowing	0	0	6	6
Athletics	1	1	5	7
Beach Volleyball	0	0	1	1
Swimming	0	4	4	8
Yachting	0	0	6	6
Shooting	1	0	1	2
Equestrian	0	0	1	1
Archery	0	0	1	1
Badminton	0	0	2	2
Table tennis	0	0	1	
Total	2	8	35	45

Table 5.14:   Questionnaire Respondents' Olympic Sport versus Coaching Preference

5.2.9   Reasons to Self-Coach

The 1996 Olympians were provided a list of circumstances in the questionnaire (see Appendix 1, p.300) as to why elite athletes might self-coach and were asked to select all those they felt applicable. Space was provided for them to add additional circumstances. Twenty-four respondents felt that a prime reason to self-coach was not having access to a coach where they lived. A questionnaire respondent summarised this in the Part C Comments section:

> *If we had enough highly knowledgeable, practical, and successful coaches (in international*
>
> *terms) then no athlete would really require to be self-coached, but this isn't the case in*
>
> *New Zealand and where I live (SK).*

Reasons to Self-Coach	Frequency
No access to a coach where I live	24
Sport does not have trained coaches	13
Surpass the technical knowledge of coach	15
Financial expense	19
Work commitments	12
Family commitments	10
Time restrictions	19
Believe can coach self	20
Prefer to self-coach	19
Other Options	
Travelling overseas without coach	1
Only I can intimately know myself/feelings therefore I am in the best position to fine tune training	1
Training hours outside team training	1
Preferable to do some self-coaching: better results	1
Need for consistency of coaching	1
Confidence in ability, very independent, enjoy being alone	1
Coaches training doesn't complement race schedule	1
Wanting to do it own way	1
Work with personal coaches	1

Table 5.15:   Questionnaire Respondents' Reasons to Self-Coach

As per Table 5.15 above, 20 respondents felt they were capable of coaching themselves; and 19 believed financial expense, time restrictions and a preference to self-coach were circumstances for an athlete to self-coach. Fifteen respondents felt they surpassed the technical knowledge of their coach and 13 said their sport did not have trained coaches to help them at their level. One athlete supported this:

The reason for self-coaching in the beginning of my career was there was no one with the

expertise. When the Olympics came along my brother coached me and we had another

sailor as "eyes" (CI).

Work and family commitments followed at, respectively, 12 and 10 responses.

Reasons to Self-Coach	Frequency
Timing - incompatible time to train with a coach and coach cannot fit in with their lifestyle	15
Arrogant athletes who think they don't need a coach	14
Lack of finances	15
Difficulty finding a compatible coach	9
Lack of faith, trust or respect in previous coaches	9
No expert coaches in region they live	15
Coaches too demanding	1
Coaches unable to travel overseas with the athlete	5
Independent athletes who like to coach themselves	11
Sparseness of coaches at the elite level	30
Coach is too busy to be with athlete all the time	3
Don't readily accept other people's advice	3
Coach trained athlete to coach themselves	1
No one knew more about the sport	2
Easier not to have to rely on someone else	3
Don't need a coach watching all the time	2
Self-opinionated	1
Athlete wants to become a coach so practices self-coaching	1
Idea of self-coaching becoming more prevalent	1
Coaching procedures aren't suited to the athlete	1

Table 5.16:   Interview Respondents' Reasons to Self-Coach

Interview respondents provided support for the questionnaire responses. They also felt that

there were not sufficient coaches at the elite level, especially in the areas where they lived;

that time and finance were restrictions; and that some athletes were independent and wanted

to coach themselves. They also revealed that some athletes felt that being incompatible with their coach was a reason why some athletes prefer to self-coach. The New Zealand representatives at the 1994 Woman's Outrigger Canoe World Championships had similar experiences. They found it difficult to find a coach with sufficient knowledge and experience in outrigger canoe racing who was acceptable to the majority of the team and who was willing to make a commitment as a coach (Green, 1997). Crespi (1988) espoused that coaches must be aware of their personality traits and match their teaching and/or coaching style accordingly to match that of the athlete. This is not always realised and the situation occurs where the athlete and coach do not see eye to eye and eventually go their separate ways. An empathetic coach should be able to recognise this incompatibility and pass the athlete along to a more appropriate coach. Some athletes said that this was not always the case.

Other circumstances suggested by the questionnaire respondents, in Table 5.15 above, support those given in interviews in Table 5.16 also above. It would have been interesting to have included the highlighted (grey background) points in Table 5.15 in the original list supplied to the questionnaire respondents as I believe these would have been frequently chosen circumstances. Both the interviewees and questionnaire respondents mentioned them relatively frequently.

5.2.10 Characteristics/Qualities of Self-Coached Athletes

In the questionnaire the 1996 Olympians were provided with a list of potential characteristics/qualities required by an athlete who wished to self-coach. They were asked to select as many responses as they felt applicable and were provided space to add other options, that is, other characteristics/qualities. One of the questionnaire respondents epitomised it in a statement about the required characteristics/qualities to self-coach.

After writing this questionnaire, I have to say that self-coaching or successful self-coaching can only be done by someone who will probably end up coaching themselves [sic] and a person who has the right characteristics. I know loads of people my age who would not succeed in coaching themselves and that is because they are not the right sort of person (BI).

One hundred percent of the respondents felt that discipline was a desirable quality. Motivation and commitment were next in line at 95.6% (43/45) and were followed by self-belief at 88.9% (40/45). Close to self-belief were confidence, dedication and determination at 86.7% (39/45). Decision-making, honesty and technical knowledge followed at 82.2% (37/45) and 77.8% (35/45) believed self-criticism was important. Next followed intuition, flexibility, self-sufficiency, control and awareness at 73.3% (33/45). One respondent said in support of these characteristics:

I think that you must be able to assess yourself in an honest and real manner. You must have confidence in your own abilities and concentrate on your own performance and not worry about the performance of others (SS).

Of the 'other options' responses supplied, included in Table 5.17 below, experience and courage were the only ones that I felt could be added to the list as characteristics/qualities. The remaining options supplied were not characteristics or qualities.

Characteristics/Qualities	Frequency
Confidence	39
Motivation	43
Commitment	43
Awareness	33
Self-esteem	25

Control	33
Ownership	19
Self-belief	40
Emotional strength	32
Dedication	39
Adaptability	32
Discipline	45
Determination	39
Self-sufficiency	33
Flexibility	33
Intuition	33
Self-criticism	35
Technical knowledge	37
Imagination	26
Performer centred	19
Decision making	37
Honest	37
Competitive spirit	26
Positive attitude	4
Resilience	26
Concentration	35
Responsiveness	18
Responsibility	31
Total	45
Other Options	
Observer	1
Imagery	1
Experience	1
Courage	1
Planning	1
Management	1
Tactical knowledge	1

Table 5.17:   Questionnaire Responses Identifying Characteristics/Qualities Required to Self-Coach

This question was also asked in the 36 interviews and responses given were summarised in Table 5.18 below.

Characteristics/Qualities	Frequency
Self-belief	8
Confident	10
Competent/self-ability	2
Analytical	16
Problem-solver	3
Determined	13
Disciplined	11
Self-motivated	19
Honest	9
Time management	5
Organisation	6
Self-critical	8
Visionary	10
Listen to others - take advice	4
Structured thought processes	2
Technical	1
Focus	13
Dedicated	5
Independent	6
Strong minded/tenacious	3
Mental hardness	6
Have to enjoy it	2
Single-minded/stubborn	5
Open-minded	1
Committed/drive/passionate	5
Obsessive	2
Positive attitude	6
Common sense	3
Intelligent	5
Temperament	2

Physically strong	1
Self-centred/selfish	2
Subservient	1
Respect	2
Arrogant	1
Responsible	2
Objective	1
Don't think there is any one quality	1
Perception	1
Relaxed	1
Diligent	1
Good self-esteem	1
Competitive	1
Patient	1
Perfectionist	1
Inquisitive	1
Conscientious	1
Talented	1

Table 5.18:   Interview Responses Identifying Characteristics/Qualities Required to Self-Coach

The responses receiving the highest frequencies were self-motivated at 19, analytical at 16, focused and determined at 13 each, disciplined at 11 and visionary and confident at 10. Other responses ranging between 5 and 9 responses were intelligent, committed, drive, passionate, single-minded, stubborn, dedicated and time management (frequencies of 5); organisation, independent, mental hardness and positive attitude (frequencies of 6); self-belief and self-critical (frequencies of 8) and honest (frequency of 9). It has been said of 1996 Olympian boardsailor Aaron McIntosh that, "[he has] inner confidence - the trademark of a single-minded champion who knows what he wants and how to get it" (Agnew, 1998, p.12). Some

comments written about Sharon Ferris, a 1996 Olympics Europe class yachtswoman, also support the key characteristics/qualities required of a self-coached athlete:

> ...most determined, resourceful, and downright gutsy competitor,....uniquely practical approach to campaign planning and fundraising....confidence and will to succeed....measure of her determination, Sharon is well on her way to fulfilling her Olympic dream ("Profile one to watch", 1998, p.16).

It is difficult to compare the frequencies of responses between the questionnaire responses and the interviewee responses. The questionnaire respondents were supplied with a list of characteristics/qualities in a closed question format whereas the interviewees were asked in an open-ended question what characteristics/qualities self-coached athletes must possess. The questionnaire respondents did not have to think about possible characteristics/qualities whereas the interviewees did. It is interesting to note that many of the same characteristics/qualities suggested by the interviewees were as listed in the questionnaire.

5.2.11 Strategies to Enhance Self-Coaching

Questionnaire respondents were requested to select strategies (which could be used to enhance self-coaching) from a supplied list of potential strategies and to select all that were considered applicable. Space was provided to add options that were not listed. The best strategy, according to 43/45 of the respondents (95.6%), was to learn from their own mistakes. 1996 Olympian and 1998 Commonwealth Games race walker, Craig Barrett, was determined to learn from his mistakes after he collapsed in the last lap of the 50 kilometre walk at the 1998 Commonwealth Games where the gold medal was to be his. After reflecting on the race Barrett admitted that he had simply made a mistake in setting too fast a pace and vowed he would learn a lot from the experience (Maddaford and Jessup, 1998). Chris

Gregorek, an All-American 800 and 1500 metre runner and now university coach, asserted in support, "Runners should learn not only from their successes and triumphs, but also from their failures" (Gregorek, cited in Wischnia, 1998, p.51).

This surprised me as I felt there were better ways to help athletes develop and self-coach than to learn from their mistakes. If they did their 'homework' and completed some planning to implement a set of guidelines or steps utilising certain strategies, then progress could be made far more quickly than by learning from their mistakes.

The next strategy to be used, a training diary, was ranked second at 88.9% (40/45). This was highly supported by one athlete.

> *In my last two years of international competition I kept a __very__ thorough diary - a well of satisfaction, desire and sense of accomplishment came from it - I cannot commend a simple concept enough (DX).*

Möeller (1993) emphasised that she did not keep a training log but felt it was a very useful tool as it would help the athlete and the coach to evaluate and control the effects of training. Hall (1997) recommended the use of a training diary or personal notebook to debrief and analyse training or competition. "Only after going all the way through the day's races will I begin to think about what they mean. The more you use a notebook, the faster you will learn in a lasting way from your experiences" (p.24).

Following closely behind at 86.7% were discussions with other athletes, self-analysis and talking to more experienced athletes. Wischnia (1998) interviewed past elite runners who had become coaches. He affirmed that when training boundaries were pushed and mistakes made;

now as coaches - a little wiser - lessons could be learned from their mistakes, an assertion which supports the questionnaire respondents' number one strategy. These past elite runners felt that talking to athletes who "had been there" could be a valuable learning opportunity.

Long-term planning programmes followed at 84.4% (38/45) and the use of a training partner at 82.2% (37/45). Joan Nesbit, an American 10,000 metre runner and 1996 Olympian, saw great value in a committed training partner.

> It may seem odd to hear a coach say this, but I think a really great training partner is more important for a runner than a coach. Any training system can work out fine if a runner is committed to it, but sometimes that commitment is the difficult part....That's where a training partner is so valuable....A great training partner stimulates and motivates you. You can learn from each other and both raise your level of performances (Nesbit cited in Wischnia, 1998, p.52).

Doug Henry and Joanne Pirini, New Zealand heptathlon and decathlon athletes respectively who both self-coach with assistance from a mentor, have competed in previous Commonwealth and Olympic Games and are living proof of Nesbit's opinion. They train together and "sometimes training can be laced with head-to-head competitions" (Sanders, 1998, p.B16). Henry said that training with Pirini had been "good innovation". They consider training with each other to be "a big plus" and "good performances lift their efforts". Pirini said:

> Because we know each other so well, we know what is a good performance for each other,...we are usually pretty frank with each other whereas a lot of other people, supporters of us, can be a bit diplomatic (Sanders, 1998, p.B16).

Their comments support the strengths of using a training partner but perhaps training partners are not valid for all sports.

Kylie Carter and Arlene Thomas, bronze and gold medal winners respectively at the Aerobics World Championships, live in the same town but do not train together as training partners. Even though there are no aerobics coaches qualified enough to coach her Kylie said, "We're competitors and like any other athletes competing against each other, we don't train together. That would be stupid really" (Hinton, 1998, p.B20).

To be self-aware was rated highly with 36/45 respondents (80%) believing it to be a positive strategy. Whitmore (1996) strongly supported this.

> *I am able to control only that which I am aware of. That which I am unaware of controls me.* **AWARENESS** *empowers me....*While awareness includes seeing and hearing...it encompasses much more than that. It is the gathering and the clear perception of the relevant facts and information, and the ability to determine what is relevant....Awareness also encompasses self-awareness, in particular recognising when and how emotions or desires distort one's own perception (p.28).

Whitmore has succinctly summarised the importance of awareness.

Viewing athletes in the same discipline rated next at 71.1% (32/45), then mentor feedback and reading books, journals and magazines at 66.6% (30/45), video analysis followed at 60% (27/45) and modelling athletes in other disciplines rated 42.2% (19/45).

Florence Griffith-Joyner, double gold medallist at the 1988 Seoul Olympics, experiences support the above strategies. "To make her way to the top she consulted Ben Johnson for advice. She spent hours studying videos of him and Carl Lewis, working out how to combine Johnson's strength and the American's effortless style" ("Flo-Jo's ugly legacy", 1998, p.A9).

A suggestion in the optional section to add 'other strategies' was "evaluating anyone who excels". This was similar to the strategies provided but has a slightly different slant. It could have received a good rating if it had been included in the main question.

Self-Coaching Strategies	Frequency
Training diary	40
Books, journals, magazines	30
Use of mirrors	9
Training partner	37
Competition diary	29
Self-awareness	36
Mentor feedback	30
Self-reflection	25
Long term planning programmes	38
Specialist assistance	28
View other elite athletes in same discipline	32
Video analysis	27
Discussions with other athletes	39
Peer feedback	28
Self-analysis	39
Self-management training	22
Self-coaching workshops	11
Talk to more experienced athletes	39
Learn from mistakes	43
Modelling other athletes	19

Table 5.19:   Questionnaire Respondents' Strategies to Enhance Self-Coaching

Thirty-one of the interviewees (86.1%) generally suggested video analysis as a first strategy compared to the lower rating (60%) suggested by the questionnaire respondents. They also strongly supported "to talk to other people to find out what they are doing and take what works best for you". Sandrock (1996) wrote about Olympic athlete Kip Keino's approach, which supports this thesis-research. He said, "As he did with all the runners and coaches he talked to, Keino, who remained a self-coached athlete his entire career, took what he thought was important and assimilated it into his own training" (p.44).

As per Table 5.20 below, other strategies given in the interviews to support the questionnaire responses are: understand your training systems by reading, watching documentaries and doing research; use of an outside observer, mentor or advisor; testing and sport medicine tools; watching other athletes; and use of a training partner and a training diary. While in the questionnaire the 1996 Olympic athletes suggested a training partner and a training diary as extremely good strategies, the interview respondents did not rate them as high.

A couple of the earlier Olympians (from 1956) felt that it was necessary for the athlete to understand all aspects of their equipment and tools required for their sport and to understand the sport itself. Peter Mander and Jack Cropp won New Zealand's first Olympic gold medal in yachting (sharpie class) at the 1956 Melbourne Olympic Games and both clearly expressed this opinion in their interviews. In Mander's obituary it was written of him, "Peter brought his intellect to bear upon the complex problem of boat speed on all points of sailing. He was a designer, boat builder, sail maker and rigging specialist, as well as being an outstanding helmsman" (Park, 1998, p.15). Mander strongly felt the above skills were of necessity of any athlete in any sport.

Self-Coaching Strategies	Frequency
Videos, videos of elite riders and world champions	31
Ask other people what they are doing and take what works for you	44
Ask questions	6
Testing-lactate, heart monitors, sport medicine tools, electronic testing devices	16
Learn about your training systems - reading, documentaries, etc.	38
Experience and trial and error	10
Knowledge of your body	10
Training diary	13
Watch other athletes	15
Goal setting	5
Outside observer, mentor, advisor	25
Time standards, performance standards, statistics	5
Annual plans, training plans	6
Visualisation	7
Support team	2
Training partner	13
Mirrors	5
Understand the role of the coach so they can fulfil it	1
Absorb yourself into the environment	1
Simulation games	1
Reflect on your performance	1
Be aware of your competition	1
Know your strengths and weaknesses	1
Constantly thinking	1
Train with other countries	1
Learn from your coaching experiences	1
Learn about equipment	2
Test the equipment	1
Personal development	1
Awareness	2

Table 5.20:   Interview Respondents' Strategies to Enhance Self-Coaching

5.2.12 Potential Steps to Self-Coaching

Questionnaire respondents were provided nine potential steps for self-coaching which evolved from reading the available literature. Respondents were asked to rank each step from 1 - 9 with 1 being the first step and 9 the last. They were also requested to supply any other steps which could be necessary for self-coaching. Eighteen respondents provided other steps, while 15 said there were no other steps and 12 did not respond to this part of the question. Table 5.21 below indicates the number of respondents, the ranked steps and the mean of the ranked responses.

Steps	N Valid	No Response	Mean	Ranking	Std. Deviation	Minimum	Maximum
Develop self-awareness and self-knowledge	44	1	4.34	5	2.24	1.00	9.00
Identify personal philosophy	42	3	3.02	3	1.80	1.00	9.00
Identify a vision	42	3	1.93	1	1.55	1.00	8.00
Set goals	44	1	2.89	2	1.24	1.00	9.00
Develop a plan of action	44	1	4.05	4	1.16	2.00	8.00
Observe and self-reflect	44	1	6.36	7	1.14	3.00	9.00
Assessment of your performance	44	1	6.32	6	1.07	4.00	9.00
Make changes/corrections	44	1	7.52	8	1.52	1.00	9.00
Reassess your performance	44	1	8.50	9	0.82	5.00	9.00

Table 5.21:   Questionnaire Respondents' Ranking of Steps for Self-Coaching

Seven of the questionnaire respondents offered the making of a plan of action as an additional step but this was already included as a potential step and was ranked as step 4 with a mean of 4.05. Questionnaire respondents (4 and 2 respectively) also listed responsibility and commitment as other steps but I would believe these to be characteristics/qualities. Tactics and have-a-mentor were also suggested (2 and 8 respectively) but I would think that these

two additions would come under strategy. Perhaps development of a tactical plan would be a step but all that was given was the word 'tactics' so the intention of what 'tactics' actually meant was not clear. Developing a tactical plan would fit under the step of 'develop a plan of action'.

It is interesting to note that the interviewees were not provided the nine potential steps whereas the questionnaire respondents were and the steps are very similar. They were asked to recommend steps that a self-coached athlete could potentially employ. This question was one of the more difficult ones for the interviewees, especially those who participated in the Olympic Games previous to 1984. Some respondents had actually followed a planned process while others approached self-coaching haphazardly. Many had never really thought about it but provided their viewpoint or a hypothetical game plan.

The three top ranking steps from the interviews, listed in Table 5.22 below, were consistent with the questionnaire responses. The interviewees were asked to provide their steps in the order they felt necessary to follow. In regards to the development of a plan of action one interview respondent - when asked, "Did you plan and prepare for the times that you were without your coach?" - replied, *"No. I just died on the training track everyday. If people said go hard then I went harder. If people said go soft* [sic] *then I went harder and so on" (ET).* The need for a plan of action is obvious.

Steps	Frequency
Identify where you are, identify what you want to do, and identify where you want to be	24
Set goals and objectives to get the big picture	24
Identify what you have to do to achieve them and write a progression type plan or programme	24
Discuss, ask questions, and analyse to perform better	24
Identify weaknesses and strategies to correct performance	7
Implement the plan and strategies	4
Use an outside observer to critique and evaluate your training	3
End of year review and accountability	1
Simple approach - no plans just do it better	2
Experiment - didn't ever write it down - kept ideas in head	1
Similar to business plan	2
Too formalised - losing the passion	1
Had a theme in mind but no real structure to training	1
Didn't plan and prepare	1
Used instinct and experience	1

Table 5.22: Interview Respondents' Steps for Self-Coaching

5.2.13 Advantages of Self-Coaching

Questionnaire respondents, but not interviewees, were asked in an open-ended question to state three advantages of self-coaching. A variety of responses were given which had to be reduced for coding purposes without losing the voices and ideas of the respondents. Responses provided to this question correlated to those given in the question regarding the circumstances that athletes chose to self-coach. The main two advantages given were "having responsibility for their own training" and "training could be personalised to how they felt", which both had frequencies of 18 out of a possible 37 responses. (Eight questionnaire

respondents chose not reply to this question)[6]. A questionnaire respondent strongly supported "training could be personalised to how they felt" as in the Part C Comments section they said:

> *Over the past few years I have coached myself believing that I know my own body well enough to know when to and when not to train and how hard I should have to push myself before going off the edge. This is very important for a formal coach to know, as it happens too often that coaches tend to overtrain athletes not knowing their athlete's bodies as well as they think. I train my body the way I feel and this minimises the chances of overtraining which is the biggest downfall of most athletes (MW).*

One of the circumstances to self-coach, which was suggested by one of the interviewees, was that *"only I can intimately know myself/feelings therefore I am in the best position to fine tune training" (CG)*. This supports the above two advantages and the quote supplied in the Part C Comments section. Swimmer (S-16) in Bloom's 1985 study also supported this.

> I tapered myself...I felt I knew myself better...I went a lot on my own feeling....I think that when I tapered myself,...it was because I wanted to believe in myself. I wanted to be in charge of what I was doing because if I failed, then I knew it was my fault, that I was messing up... (Bloom, 1985, p.186).

Möeller (1993) wrote that her philosophy of training emphasised her readiness for performance.

> I listen to my feelings, my body, my mood, and emotions before I start my training and during training. From that analysis, I make my decision to focus more on endurance, speed or technique for that specific training session...leave it open to my emotions to continue

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[6] The option to not respond to a question was provided for in the questionnaire instructions. Respondents were informed that they did not have to answer all questions if they chose not to.

my training...I constantly adjust my effort and try to follow the basic rules of training (p.138).

Mike Sprecklen, who coached world champions and Olympic gold medallists rowers Holmes and Redgrave, said, "I was stuck, I had taught them all I knew technically,...this opens the possibility of going further, for they can feel things that I can't even see" (cited in Whitmore, 1996, p.11). He had discovered a new way of coaching based on his athletes' experiences and perceptions rather than from his own.

All these quotes support the view of the athlete understanding and knowing their body and feelings. I believe if this response had been supplied as part of a closed-ended question in the questionnaire, it would have been selected as a common circumstance. It is a realistic response and several of the interviewees have alluded to and have stated this same idea. The interviewees were not asked this exact same question, but were asked, "Is self-coaching beneficial for elite athletes?"

Next in line from the questionnaire responses, at 11 responses, was the time aspect related to self-coaching. This was in reference to athletes training at a time suitable to them, which fitted into their family or work commitments or that it took less time to train on their own as they did not have to rely on a coach and train when that coach was available.

When asked in the questionnaire why an athlete may choose to self-coach, time restrictions were chosen with a frequency of 19. They felt that the excess, non-productive time and travel time involved in having a coach would increase their potential to self-coach. The financial implications were also recognised. Less financial obligations were seen as an advantage to

self-coaching while the financial expense was noted as a disadvantage and reason why athletes chose to self-coach.

The next advantages were stated as being able to self-analyse and having a clear idea of what was to be achieved with frequencies of 9. The ability to grow and learn and to gain self-satisfaction followed with 8 and 7 frequencies respectively. The interviewees supported the idea that self-coaching provided the ability to grow and learn. Nine of them felt it would be beneficial for both developing and elite athletes in that they would learn to think and do things for themselves making them more effective in whatever they did. Zepke et al. (1996), who researched and wrote on self-help for teachers, said that self-help enabled people to meet their own learning needs in their own work place, in their own time and at their own pace. This appears to be the thoughts of the questionnaire respondents noted above and of the interviewees too.

Möeller (1993) believed that the results and benefits of her self-coaching method of training were:

1. higher efficiency (quality versus quantity)

2. higher sensory awareness (play with emotions and body)

3. motivation (more fun, looking forward to what the next training session will bring)

4. learn about myself, my emotions and how to cope with them

5. establish availability of training alternatives (p.138).

As discussed, all these points were presented however briefly in either the interviews or the questionnaires.

Advantages of Self-Coaching	Frequency
Time aspect	11
Less financial expenditure	4
Self-satisfaction	7
Self-analysis	9
Responsible for own training	18
Discipline	4
Ability to grow and learn enhanced	8
Keeps you motivated	2
Have clear ideas of what you want to achieve	9
Personalised to how you feel	18
Performance reflects effort	3
No response	8

Table 5.23:   Questionnaire Respondents' Advantages of Self-Coaching

5.2.14 Disadvantages of Self-Coaching

Questionnaire respondents were asked in an open-ended question to state three disadvantages of self-coaching. A variety of responses were reduced to a manageable list but one that still reflected the voices and ideas of the respondents. The main disadvantage, with 20 responses, was there being no outside person to keep you on track. If the definition of self-coaching was perceived to be that the athlete made all their training and competition decisions without any outside assistance, then this response is quite valid. My working definition of self-coaching includes "that the athlete may call on an advisor, coach, mentor or observer when, or if, required". If this clause is incorporated into the researched definition then this disadvantage will become null and void. If not, it is a valid point. One of the 1996 Olympians responded that there would be no disadvantages if the athlete kept in touch with their advisors. This statement would be deemed accurate if the above-mentioned clause were included in the self-coaching definition.

Another disadvantage given was difficult to stay motivated with a frequency of 11. But, judged by the characteristics/qualities of an athlete who self-coaches, motivation was rated 95.6% with 43/45 of the questionnaire respondents choosing this option as a key characteristic/quality. In the interviews several of the respondents equated self-coaching with self-motivation and felt they were one in the same. The interviewees mentioned motivation the most frequently (19 times) out of all the responses given for characteristics/qualities that self-coached athletes should possess. Therefore, I do not feel that motivation - or lack of motivation - would be a problem or be considered a disadvantage. This is an area where further research would be of benefit. I believe it is valid to say that a self-coached athlete must have a higher degree of motivation than a coached athlete.

The remaining disadvantages, given by the questionnaire respondents, had a frequency of between 2 and 6 responses with 4.53 being the mean response rate. Some of the disadvantages, supported by the interviewees, were lack of moral support when needed, not sure if they were on the right track, lack of objectivity and can't see your own mistakes. Six questionnaire respondents thought that not being disciplined enough would also be a disadvantage. But, once again, when asked the characteristics/qualities of self-coached athletes, discipline was rated number one with 100% of the questionnaire respondents believing it to be the most important factor. The interviewees, 11/36, also supported this. Therefore, it appears that discipline would not be a problem and therefore not a disadvantage of self-coaching. This may be another area requiring further research.

Disadvantages of Self-Coaching	Frequency
Easy to not listen to body	2
Put a lot of stress on self	5
Lack of moral support when needed	3
Not being in a training group	3
Not always sure if on right track	4
Lonely	4
None - if in contact with advisors	1
Lack of objectivity	6
No outside person to keep you on track	20
Lack of knowledge	5
Not disciplined enough	6
Can't see your own mistakes	5
Difficult to stay motivated	11
Can't see all the answers	6
May miss latest technical developments	4
Extra things to think about	6
No response	7

Table 5.24:   Questionnaire Respondents' Disadvantages of Self-Coaching

5.3   CONCEPT MAPPING

This section presents the results and the interpretation of the concept mapping exercise. The items (verbal statements or phrases) gathered from the 36 interviews with previous Olympic medal winners and 1996 Olympians were distributed to five groups consisting of six people and one group of five people [7] for sorting and rating.

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[7] One of the interview respondents passed away during the course of the research.

Concept Map Interpretation	
Cluster	A numbered and named collection of items that were sorted together and enclosed in a polygon. Clusters were named according to the items contained in that particular polygon.
Cluster size	Determined by the number of items sorted into a particular cluster and the relatedness of the items contained within it. It indicates group variance in placing of the items.
Cluster items	The verbal statements or phrases generated from the interviews that have been sorted and rated into individual clusters and are therefore, the cluster contents or cluster items.
Spatial relations between clusters	Items that are located in the same place, next to each other, or overlap, suggest that they are very similar in content and therefore related as interpreted or perceived by the respondents. Those that are located at opposite ends of the map are interpreted to be very different and therefore not as inter-related.
Bridging values	A value given to an item based on the extent to which it is linked with other surrounding items. A cluster bridging value average is portrayed as 1-to-5 bridging levels. Levels 1 and 2 indicate low bridging linkages, level 3 indicates a moderate linkage, and levels 4 and 5 indicate high bridging linkages. A cluster bridging value average is the mean of all the items' bridging values in that particular cluster.
Bridging legend	Provides bridging values, which correspond to 1 of 5 levels which reflect ranges of linkages.
Rating values	A value given to an item, which was rated from 1-to-5 according to its perceived importance or effectiveness in relation to other items associated to the construct. A rating of 1 indicated that the item was relatively unimportant in comparison to the rest of the items, a 3 meant that it was moderately important and a 5 meant that it was extremely important. A cluster rating value average is the mean of all the items' rating values in that particular cluster.
Rating legend	Provides rating values, which correspond to 1 of 5 levels which reflect ranges of importance.

Table 5.25:   Concept Map Interpretation

A cluster map representing each construct as well as the item cluster lists and the bridging and rating values for each item is required for map interpretation. The bridging and rating values are the basis for the map interpretation. Cluster maps (shown as figures) portray the cluster size, spatial relations and the bridging or rating legends for each construct and are included in the text. Tables showing cluster numbers, cluster names, cluster bridging value averages, cluster rating value averages and rating and bridging levels are also included in the text. The maps, tables, commentary and results of each concept theme are presented individually below. Cluster item listings with bridging and rating values for each item may be found in Appendices 6 - 11. The next six sections present the maps generated from this portion of the research.

5.3.1   Define/Describe Self-Coaching

Respondents to this section of the research sorted and rated 67 definitions or descriptions of self-coaching to form the construct represented by this map. The item cluster listing with bridging and rating values is presented in Appendix 6.

5.3.1.1 Interpreting the Concept

The first map, Figure 5.1 below, has ten distinct clusters. Cluster names and details (cluster bridging and rating value averages) are shown below in Table 5.26. Full cluster item listings can be found in Appendix 6.

CLUSTER NUMBER AND NAME	BRIDGING VALUES		IMPORTANCE VALUES	
(brackets show number of items in a cluster)	Average	Level	Average	Level
1. Self-analysis (6)	0.57	4	4.25	5
2. Self-achievement (3)	0.52	4	3.67	4
3. Performance review (4)	0.05	1	3.96	5
4. Motivation (8)	0.27	2	3.94	4
5. Vision development (11)	0.12	1	4.09	5
6. Programme plan development (5)	0.18	1	3.57	3
7. Ownership of training (10)	0.21	2	3.23	2
8. Coach attributes (9)	0.29	2	2.70	1
9. Upskilling (6)	0.76	5	3.67	4
10. Integrating knowledge (5)	0.80	5	3.23	2

Table 5.26:   Named Clusters for Definition of Self-Coaching with a Summary of the Cluster Bridging and Rating Value Averages
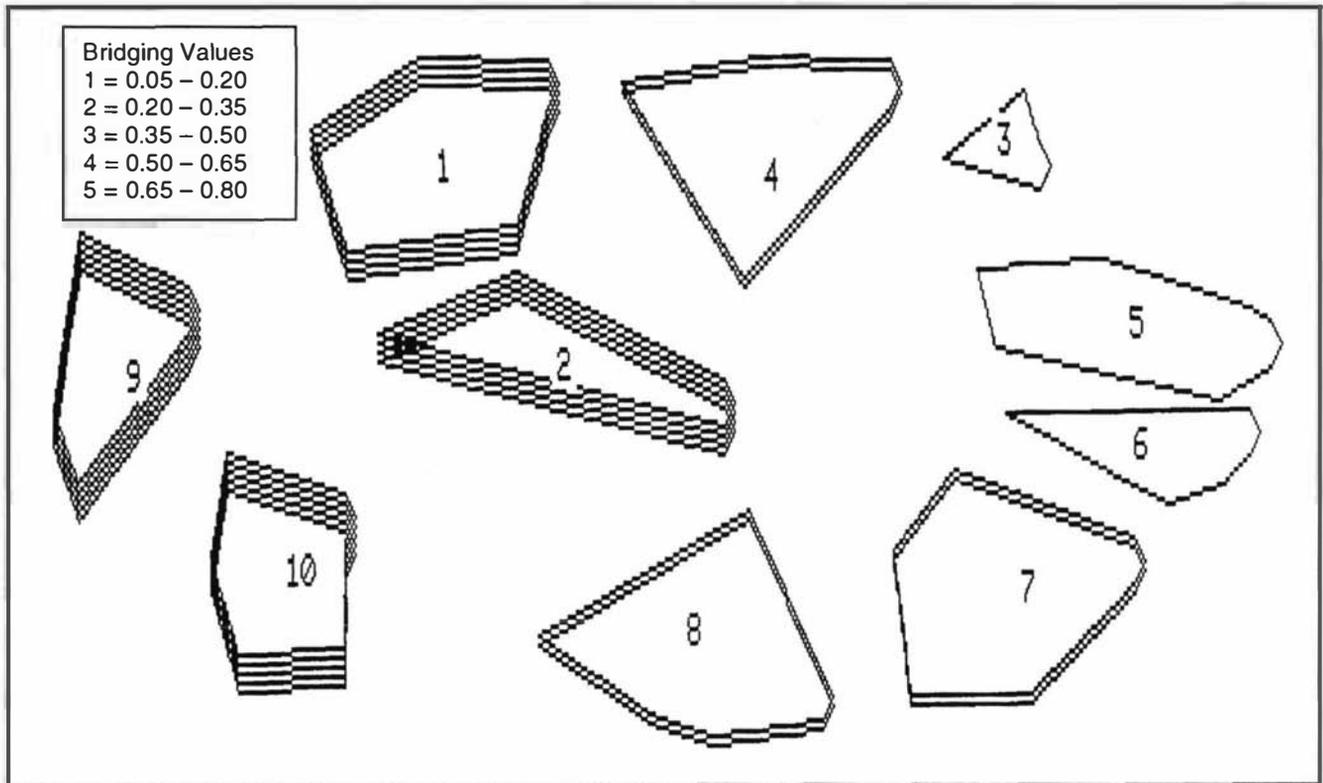
Figure 5.1: Bridging Map for Definition of Self-Coaching

Cluster 1 (self-analysis) was named as it contained items such as ability to be self-critical, thinking for yourself and self-analysis. Cluster 2 (self-achievement) contained such items as

teaching yourself the craft of the sport and to get the most potential out of yourself. Cluster 3 (performance review) contained review the plan of action, analysing your own performance and technique and thinking about everything to improve your performance. Cluster 4 (motivation) contained the ability to motivate yourself, being self-motivated and knowing your strengths and weaknesses. Cluster 5 (vision development) contained developing a plan of action, knowing where you are going, setting steps to achieve your goals and identifying what areas need work. Cluster 6 (programme plan development) contained set your own plans, schedules and goals, setting your own programmes and taking ownership of your training. Cluster 7 (ownership of training) contained athlete takes responsibility for the end result as opposed to the coach, athletes training themselves, when you are driving every skill execution yourself and trying to affect your performance without outside help. Cluster 8 (coach attributes) contained ability to pick yourself to bits in training, putting what you have learned into practice and being a coach and athlete at the same time. Cluster 9 (upskilling) contained doing extra training on your own, having an open and enquiring mind and researching all you need to know to become the best. Cluster 10 (integrating knowledge) contained relaying information from the outside to coach yourself, choosing what to do in training within a framework set by the coach and a step above doing what your coach tells you to do. Other items in these clusters may be viewed in Appendix 6.

Figure 5.1 also shows that all clusters are relatively large except for clusters 3 and 6. As can be seen in Table 5.26, clusters 1, 4, 5, 7, 8 and 9 have a minimum of 6 items each and that clusters 2, 3, 6 and 10 have between 3 and 5 items. Clusters 3 and 6 are small due to the number of items they contain, plus they have low cluster bridging value averages indicating that the items in these clusters were generally perceived to be related to each other and that they were sorted together more often than with other items. Clusters 4, 5, 7 and 8 are larger

because of the number of items they contain even though they have low cluster bridging value averages, whereas clusters 1, 2, 9 and 10 are as large but have fewer items and higher cluster bridging value averages. This indicates that the items in clusters 1, 2, 9 and 10 were often sorted with items in surrounding clusters stretching their cluster borders. Items such as numbers 1, 28 and 13 in cluster 1, number 41 in cluster 2, numbers 58, 67 and 60 in cluster 9 and numbers 43, 55, 25 and 22 in cluster 10, which can all be viewed in Appendix 6, are the higher bridging items responsible for stretching the clusters to a larger size due to them being sorted frequently with items in surrounding clusters. Item number 16 (experimenting in the absence of a coach) in cluster 8 is the only item responsible for stretching the size of this cluster. This item bridges with items 55 (choosing what to do in a framework set by the coach) and 22 (a step above doing what your coach tells you to do) in cluster 10 as these are options that an athlete could choose while self-coaching.

Spatially, some concepts are closely related to each other, such as clusters 5 and 6 and clusters 1 and 2, while the remaining clusters, clusters 3, 4, 7, 8, 9 and 10, are not. Beginning on the left side of the map in Figure 5.1, items contained in clusters 1, 2, 9 and 10 have a level 4 or 5 cluster bridging value average indicating that items within these clusters were sorted frequently with items in the nearby clusters. Clusters 9, 10, 1 and 2 on the far left of the map were never, or rarely, considered to be related to the items in clusters 4, 3, 5, 6, 7 and 8 located on the right of the map. The bridging values of item 16 (experimenting in the absence of a coach) in cluster 8 and items 55 (choosing what to do in training within a framework set by the coach) and 22 (a step above doing what your coach tells you to) in cluster 10 indicate a high degree of inter-relatedness between these issues. It is understandable the respondents had difficulty in sorting these items as each of them infer that it is the athlete who makes the decision as to the content of a training session. Also in cluster

10 items 12 and 43 and items 60, 10 and 67 in cluster 9 (see Appendix 6) all have high bridging values indicating a high degree of inter-relatedness. Again these items all deal with a similar idea of the athlete seeking outside information to benefit their training and goal achievement. This indicates that it was these items in particular that were the bridging items responsible for increasing the cluster bridging value average. Clusters 9 and 10 have the highest bridging value averages of the 10 clusters as can be seen in Table 5.26, suggesting the items in these were sorted quite often with surrounding items.

To the right on the map are clusters 1 and 2 which also have relatively high cluster bridging value averages. This also indicates that the items in these two clusters were sorted similarly to those in clusters 9 and 10 but respondents sorted them together more often than they did in clusters 9 and 10. This high degree of inter-relatedness of the items suggests that the construct is ambiguous. This is interesting as this indicates that as a group, the respondents to this concept mapping exercise had no general agreement where these items fit into the concept of a definition of self-coaching.

On the far right side of the map clusters 5 and 6 have the lowest bridging values. This indicates the items in these clusters were generally perceived to be related to each other and were sorted together more often than with other items. Although these clusters have low cluster bridging value averages they are situated close together. Management theory indicates that vision development (cluster 5) and programme plan development (cluster 6) go hand in hand. It is understandable that respondents would have perceived the items in these clusters to be similar and locate them next to each other. Cluster 3 (performance review) had the lowest cluster bridging value average. Although it is distanced from clusters 5 and 6, again

management theory would say that this concept is related. The respondents did not perceive it to be as closely related as clusters 5 and 6.

It must be noted that three items in clusters 1 and 2 are basically the same and should have been reduced to just the one item when prepared for distribution to be sorted and rated. As can be seen in Appendix 6, these items are number 28 (the ability to get the best out of yourself) in cluster 1 and number 33 (to get the most potential out of yourself) and 41 (the ability to bring the best out of yourself) in cluster 2. The ambiguity and uncertainty, which the respondents may have perceived, could have been avoided or at least minimised if I had included just the one item to be sorted and rated.

The remaining clusters, 4, 7 and 8 had similar cluster bridging value averages. The items in these clusters were also perceived to be related to each other as in the clusters discussed immediately above. The lower to medium bridging values indicate a moderate degree of relatedness to the items in the surrounding clusters.

Cluster 4 also included similar items, which were numbered 48, 50 and 11. As in clusters 1 and 2 where items could have been reduced or combined prior to analysis, the same could have been done with these items relating to self-motivation. Initially I felt that being self-motivated (item 50) was different from having the ability to motivate yourself (items 48 and 11). I did not notice the duplicate items, numbers 11 and 48. Once again this may have helped to contribute to ambiguity and incongruity when these items were sorted and rated.

Vision development (cluster 5) and programme plan development (cluster 6) are clearly related to each other with performance review (cluster 3) being perceived to be closely

related to them and motivation (cluster 4) being somewhat related to all three. Self-analysis (cluster 1) and self-achievement (cluster 2) are also clearly related to each other. Ownership of training (cluster 7) and coach attributes (cluster 8) are also perceived to be closely related. Upskilling (cluster 9) and integrating knowledge (cluster 10) are perceived to be inter-related as well with the higher bridging values.

As there has been no academic research on self-coaching of elite athletes, support for these results cannot be found in the academic literature. In summary, clusters 9 and 10 on the far left of the map deal mostly with research gathering and research techniques to improve the self-coaching process and the awareness of it. Clusters 1 and 2, just to the right of these clusters, relate to self-improvement and the personal characteristics/qualities that a self-coached athlete should possess. Both concepts deal with the self. In order to self-achieve, self-analysis must take place so a gauge of this achievement level can be realised. These are logical outcomes as a self-coached athlete is responsible for determining their own destiny so it is up to them to pursue the information required helping them attain their goals. The next four clusters on the far right of the map, clusters 4, 3, 5 and 6, indicate the core management tools needed for training and competition programme development and review. This translates that it is the athlete who is responsible for directing the outcome of the self-coaching experience. Management theory would support the processes of planning, organising and evaluating as necessary and compulsory. Finally, clusters 7 and 8 on the lower right side of the map represent some ideas of what self-coaching is thought to be in terms of being a coach to yourself and what coaches do, and in this case, what the athlete must do to coach themselves. They are important activities to identify and realise.

5.3.1.2 Interpreting the Content

The next part of the results presentation relates to the importance that the respondents to this portion of the research placed on the items in relation to the definition of self-coaching. The items were rated on the following scale:

5   critical to the description/definition of self-coaching - an absolute necessity

4   important to the description/definition of self-coaching - most good descriptions have this

3   helpful to the description/definition of self-coaching - a desirable description

2   unimportant, non-essential, but could be a description in some cases

1   neither adds nor detracts from the description/definition - makes no difference.

In terms of perceived importance, Figure 5.2 below, shows the importance attributed to each cluster of issues. Just over half the items (39/67) in this construct were rated between 3.53 to 4.67. Level 5 clusters, the most important ones, include clusters 1, 3 and 5. Least or less important clusters with levels of 1 or 2 include clusters 7, 8 and 10. Clusters 1 (self-analysis), 3 (performance review) and 5 (vision development) were rated the most important as the names and content of these clusters implicate the foundation of self-coaching. The responses supplied in the questionnaire and from the interviewees when discussing the definition of self-coaching were similarly presented and felt to be the basis of self-coaching. Both believed the athlete has to be able to analyse themselves honestly, continually review their performance and procedures and ensure that what they are doing is all in aid of achieving their vision. All these components were considered to be highly relevant and critical to self-coach successfully. Appendix 6 shows that items 1, 28 and 2 contributed most to the importance of cluster 1, item 7 to cluster 3, while items 3 and 6 contributed to cluster 5. The

cluster rating value average for cluster 7 was pulled down due to item 9 (producing results without someone on your back). Item 14 (ability to pick yourself to bits in training) was responsible for this in cluster 8 and item 25 (occurs most often when travelling) in cluster 10. Cluster 8 (coach attributes) rated the least important. As the athletes would be coaching themselves, coach attributes were perceived to be irrelevant. Following next in importance at level 4 were clusters 2 (self-achievement), 4 (motivation) and 9 (upskilling) which have also been reported by the questionnaire respondents and the interviewees to be necessary components of self-coaching. Cluster 3 (programme plan development) rated as level 3, a helpful or desirable to a definition of self-coaching.
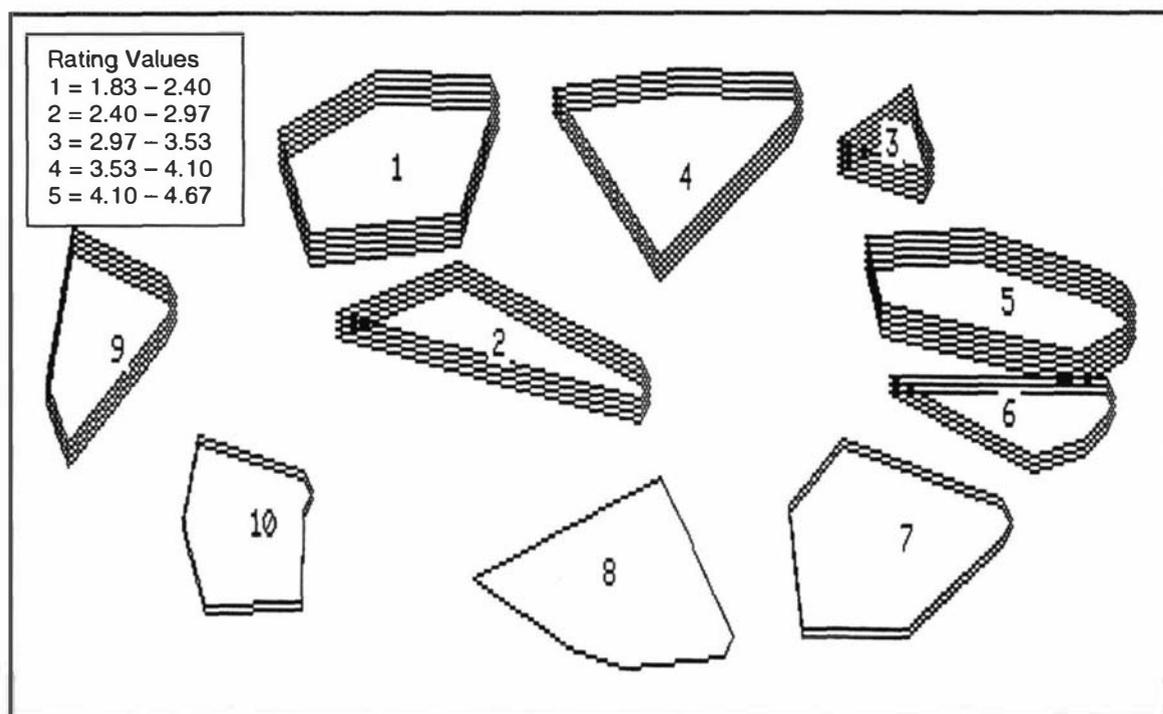
Figure 5.2: Rating Map for Definition of Self-Coaching

5.3.1.3 Synopsis of the Interpretations

There was no previous academically researched definition of self-coaching in sport with which to compare the outcomes of this concept mapping exercise. Academician McConnell (1995), whose definition on which the working definition for this research was based, did not

develop his through research activity. Practitioners such as Greenwood (1986) included problem-solving in his definition of self-coaching. Whitmore (1994), in a business sense, felt decisions were best made by reviewing the needs of the self-coached individual and Stringer, cited in Whitmore (1994), also in a business sense, felt self-coaching to be a performer-centred approach, like participative management with ownership equalling commitment. Aside from McConnell's definition, I believed that Stringer's definition most closely resembled what I considered the definition of self-coaching should include and following this concept mapping exercise, my belief is confirmed. This can be seen in clusters 1 (self-analysis), 5 (vision development), 6 (programme plan development), 7 (ownership of training), 8 (coach attributes) and 10 (integrating knowledge). Problem-solving is included in cluster 9 (upskilling) and cluster 10 (integrating knowledge). Whitmore's contribution is considered in clusters 1 (self-analysis), 3 (performance review), 4 (motivation) and 5 (vision development).

From this concept mapping exercise my working definition of self-coaching could be altered minimally. The working definition was stated as, "a proactive concept where the athlete facilitated their self-development of performance-enhancing and achievement-oriented activities either in the absence of a coach, mentor, technical advisor or observer or with one of these having input only when, or if, required". The updated definition could be "the ownership and practice of self-development and organisational activities oriented towards enhancing performance and goal achievement".

An overview of the concept mapping exercise for the definition of self-coaching reveals that there were some clear and distinct concepts identified. It also identifies there were those that were indeterminate or blurred, as the high cluster bridging value averages indicate, yet they

were still perceived as distinct from the other concepts presented. It is interesting to note these concepts were similar to the key themes, which emerged from the questionnaire and interview analysis as noted in Table 5.27 below. Overall, the concepts rated quite highly indicating they were perceived to be very important and critical to the definition of self-coaching.

Questionnaire and Interview Themes	Concept Mapping Synopsis
• Critically analysing your performance. • Ability to be self-analytical or self critical	• Self-analysis
• Ability to get best out of self and be disciplined, independent, and dedicated	• Self-achievement
• Revision of plans, goals, & training that the athlete set	• Performance review
• Ability to be motivated	• Motivation
• Setting goals	• Vision development
• Setting plans and training	• Programme plan development
• Taking ownership and control of everything • Coaching and training yourself - without outside help or advice • Athlete makes decisions on training	• Ownership of training
• Being a coach yourself • Teaching yourself	• Coach attributes
• Taking information from an outside source if needed	• Upskilling
• Seeking and gaining a body of knowledge • Coach may still be involved or present • Using past experience • Administer coach's programme to self	• Integrating knowledge

Table 5.27: **Key Questionnaire and Interview Themes Comparative to the Concept Mapping Exercise Results**

5.3.2 Define/Describe Formal Coaching

Respondents to this section of the research sorted and rated 59 definitions or descriptions of

formal coaching to form the construct represented by this map. The item cluster listing with

bridging and rating values is presented in Appendix 7.

5.3.2.1 Interpreting the Concept

The map shown in Figure 5.3 below depicts eight distinct clusters. Cluster names and details

(cluster bridging and rating value averages) are shown in Table 5.28 below. Appendix 7

contains the full item cluster listings.

CLUSTER NUMBER AND NAME	BRIDGING VALUES		IMPORTANCE VALUES	
(brackets show number of items in a cluster)	Average	Level	Average	Level
1. Teaching the basics (7)	0.19	1	4.90	5
2. Advisor (9)	0.47	4	4.15	4
3. Relieving pressure (7)	0.36	3	2.71	1
4. Coach-athlete dynamics (6)	0.33	3	3.83	3
5. Mentor (3)	0.69	5	3.33	2
6. Catalyst (9)	0.10	1	3.70	3
7. Facilitator (9)	0.07	1	4.19	4
8. Teaching flair (9)	0.29	2	4.26	4

Table 5.28: Named Clusters for Definition of Formal Coaching with a Summary of Averaged Bridging and Rating Values
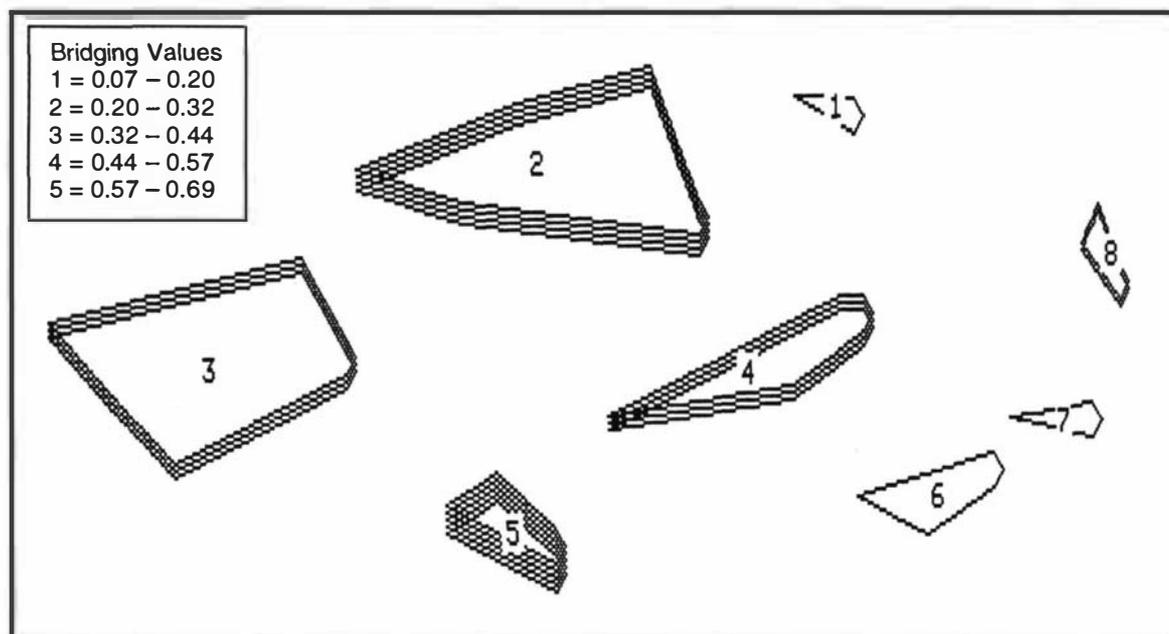
Figure 5.3: Bridging Map for Definition of Formal Coaching

Cluster 1 (teaching the basics) was so titled as it contained such items as getting the basics right, attempting to get an athlete to perform a skill correctly and teaching the basics and techniques. Cluster 2 (advisor) contained giving advice, clarifying things for the athlete and to assist in training or competition if asked. Cluster 3 (relieving pressure) included passing on experience, being a role model and doing all the worrying for the athlete. Cluster 4 (coach-athlete dynamics) contained having a good relationship with the athlete, being supportive of the athlete and a friendship relationship. Cluster 5 (mentor) included someone looking from the outside to aid goal achievement and a mentoring role. Cluster 6 (catalyst) contained observation to help the athlete improve, overseeing performances and training and a confidante. Cluster 7 (facilitator) included bringing out more in the athlete than they thought they could, pushing the athlete past what they feel they can achieve and guidance. Finally, cluster 8 (teaching flair) contained teaching the strategies needed to compete, has to be able to explain things simply and to put information and ideas in front of the athlete. Other items in these clusters are shown in Appendix 7.

Figure 5.3 also shows that clusters 2 and 3 are the largest, cluster 4 is of medium size and the remaining clusters, 1, 5, 6, 7 and 8 are the smallest. Clusters 2 and 3 have 9 and 7 items respectively as can be seen in Table 5.28. These clusters have a large number of items but also have items with high bridging values, which have stretched the clusters to a larger size. Item number 7 (someone who provides feedback) in cluster 2 and item numbers 4 (passing on experience) and 23 (being a role model) in cluster 3 are responsible for raising the cluster bridging value average and stretching the cluster size. They were sorted more frequently with items in the surrounding clusters. These items infer similar meanings, which is that an outsider is transferring a message or skill. This is the reason why the respondents considered these items to be inter-related and had difficulty deciding in which cluster they should be sorted. Cluster 4, with 6 items, would have been smaller except that item number 38 (a friendship relationship) is a bridging item which was also sorted more often with items in surrounding clusters. This item caused cluster 4 to stretch further to the left side of the map. Cluster 5, with only 3 items all having high bridging values, would have been smaller in size if the bridging values were lower thus indicating that the items had been sorted together often. This was not the case and the cluster was stretched to a larger size as the items were sorted frequently with items in the surrounding clusters. Clusters 1, 6, 7 and 8 have lower cluster bridging value averages indicating that the greater number of respondents sorted the items in these clusters together quite often. This means that the items were either located next to each other, in close proximity or were overlapping. Individual item bridging values may be seen in Appendix 7.

Travelling across the map from left to right in Figure 5.3, items contained in clusters 3, 2, 5 and 4 have a level 3 or higher bridging value again indicating that items within these clusters

were sorted frequently with items in the surrounding clusters. They are all inter-related and contain items all relating to mentor roles or the passing of advice from an outsider.

Items which act as bridges in clusters 3, 5 and 4 include item number 23 (being a role model) in cluster 3, item numbers 12 (someone looking from the outside to aid goal achievement) and 30 (a mentoring role) in cluster 5 and item number 38 (a friendship relationship) in cluster 4. Also in cluster 3, item 4 (passing on experience) and item number 7 (someone who provides feedback) in cluster 2, act as bridging items. This suggests that the items in each of these clusters were sorted quite often with surrounding items and were therefore considered to be related to a number of different, yet related concepts. This suggests that the construct is ambiguous and that there is a high degree of inter-relatedness of the items. This is interesting as this indicates that as a group, the respondents to this concept mapping exercise had no general agreement where these items would fit into the concept of a definition of formal coaching.

On the right of the map, clusters 1, 8, 7 and 6 have lower cluster bridging value averages. This indicates that the items in these clusters were generally perceived to be related to each other and were sorted together more often than with other items in surrounding clusters. It must be noted that cluster 8 has a little higher cluster bridging value average, which indicates a low to moderate degree of relatedness to the surrounding items. Cluster 8 had bridging values ranging from 0.27 to 0.32 and the items may be viewed in Appendix 7. All items in clusters 1 and 7 had consistently low bridging values whereas in cluster 6 three items, numbers 17, 37 and 49, had higher bridging values which pushed the cluster bridging value average upwards. It was these three items that were sorted more frequently with items in surrounding clusters, which caused the cluster bridging value average to be elevated.

These eight clusters were perceived to be distinct by the respondents as can be seen from the placing of the clusters on the map. The distancing of these clusters indicates for example that items in cluster 3, on the far left of the map were never or rarely sorted with items in clusters 8, 7 and 6 on the far right of the map. The respondents did not perceive the items in these clusters to be closely related at all. Overall, cluster 3 (relieving pressure) was not considered to be related to clusters 8 (teaching flair), 7 (facilitator) or 6 (catalyst). Clusters 8, 7 and 6 are positive, exuberant, roles that a coach would play while cluster 3 contained more negative oriented items. Cluster 1 (teaching the basics) is somewhat related to cluster 8 even though they are not directly located next to each other. Their content is similar as both have items, which refer to teaching. These are items 20 and 53 in cluster 1 and items 54 and 55 in cluster 8. Clusters 2 (advice) and 5 (mentor) have similar items in numbers 2, 7 and 33 in cluster 2 and numbers 12 and 30 in cluster 5. These deal with feedback and the provision of advice. Cluster 5 is also related to clusters 3 (relieving pressure) and 4 (coach-athlete dynamics). These are roles in which a mentor would be involved. The high cluster bridging value averages of clusters 3, 5, 2 and 4 indicate the inter-relatedness perceived by the respondents. The map flows relatively well except for cluster 4 in the middle of the map. As this cluster is named coach-athlete dynamics, it is actually related to all the clusters, so therefore it is not really out of place and can be considered a bridging cluster.

In summary, cluster 3 on the far left refers to making life easier for the athlete and relieving the pressure they can at times experience. Clusters 2 and 5 deal with providing feedback and leadership to help the athlete achieve their sporting potential. Clusters 1 and 8 involve pedagogical aspects of coaching and clusters 6 and 7 the motivating roles of a coach. Cluster 4 bridges all these clusters showing the relationship held between a coach and an athlete.

5.3.2.2 Interpreting the Content

The next part of the results presentation relates to the importance that the respondents to this portion of the research placed on the items in relation to the definition of a formal coach. They were rated on the same scale used for the definition of self-coaching on page 163.

Figure 5.4 below shows the importance attributed to each cluster of issues in terms of perceived importance. Most of the items (36/59) in this construct were rated between 3.80 to 5.00. The greatest importance or highest rating, levels 4 - 5, was placed on items in clusters 1, 2, 7 and 8. These clusters named teaching the basics, advisor, facilitator and teaching flair respectively, are roles or responsibilities that academic research supports when defining what a coach does or the term coaching itself. Questionnaire respondents and interviewees supported these concept themes as well. A coach must be able to transfer knowledge and aid in skill acquisition. It is their role to advise an athlete and facilitate their development and advancement in their chosen sport. The least importance or lowest rating was placed on items in clusters 3 (relieving pressure) and 5 (mentor). All the items in cluster 3 received low rating values confirming that the respondents did not perceive this concept to be important to the definition of formal coaching. In regards to cluster 5, academic research would dispute the low importance rating given to this cluster. One of the coach's roles is to be a mentor to their athletes. Cluster 3 only contained 3 items and item 10 (an amateur psychologist) had a very low rating value (level 1) and is responsible for lowering the cluster rating value average. If item 10 had not been sorted into this cluster, the cluster rating value average would have increased to a level 3 and therefore the role as mentor would have been considered helpful or desirable to the definition of a formal coach. Clusters 4 (coach–athlete dynamics) and 6 (catalyst) were moderately rated and again academic research would confirm that both these concepts are necessary components of coaching but would probably not state its relative

importance as this research has done. This research indicates that the respondents felt them important but not as important as the other concepts presented.
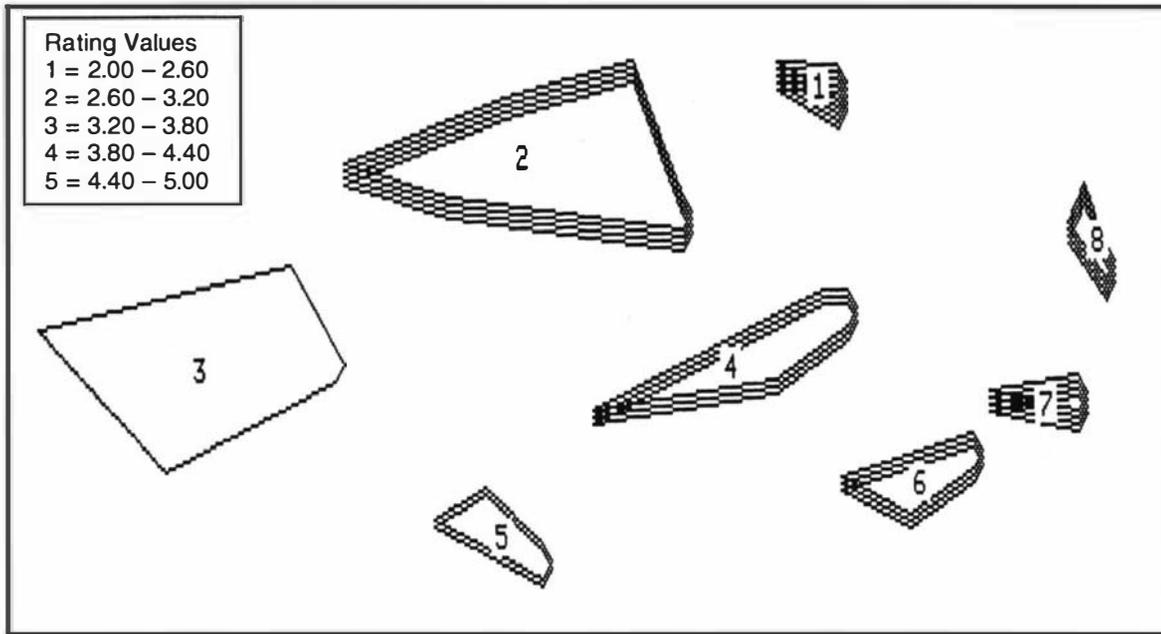
Figure 5.4: Rating Map for Definition of a Formal Coach

5.3.2.3 Synopsis of the Interpretations

When sport researchers define formal coaching all the names assigned to the clusters in this concept mapping exercise are utilised, discussed or inferred. This research has not shed any new light on what a formal coach is but it has shown some relationships between the key issues defining what a coach or coaching is. The names of the clusters described what a coach is or does more so than defining coaching. Clusters 2, 5, 6 and 7 describe the roles of a coach, clusters 1, 3 and 8 describe what a coach does, while cluster 4 describes a coaching relationship. Combined, as perceived by the respondents, these clusters represent what formal coaching is and support previous academic research.

From this concept mapping exercise the definition of formal coaching relayed by the respondents is that coaching is a pedagogical process where the coach is responsible for

support and encouragement of the athlete. Researchers such as Evered and Selman (1989), Gummerson (1992), Howe (1986), Martens (1987), Parsloe (1995) and Whitmore (1996) support this definition.

A synopsis of the concept mapping exercise for the definition of formal coaching reveals that clear and distinct concepts were identified. A few items were perceived to be indeterminate or blurred as the higher cluster bridging value averages indicate but yet were still perceived as distinct from the other concepts presented. It is interesting to note that these concepts were comparable but not totally similar to the themes that emerged from the questionnaire and interview analysis (see Table 5.29 below). The concepts rated relatively high indicating they were perceived to be very important and critical to the definition of formal coaching.

Questionnaire and Interview Themes	Concept Mapping Synopsis
• Teaching the basic skill techniques	• Teaching the basics
• Intermittent contact • Analysed by outside observer	• Advisor
• Problem-solver • Setting goals, devising a plan to achieve the goals and plan implementation	• Relieving pressure
• A qualified coach • Coach sets the programme • Supervision of workouts	• Coach-athlete dynamics
• Passing on of knowledge, information or experience	• Mentor
• Bringing them to the best of their potential	• Catalyst
• Directions given but athlete carries out the tasks	• Facilitator
• Coaching equals teaching	• Teaching flair

Table 5.29: **Key Questionnaire and Interview Themes Comparative to the Concept Mapping Exercise Results**

5.3.3 Reasons to Self-Coach

Respondents to this section of the research sorted and rated 59 reasons why athletes may self-coach to form the construct represented by this map. The item cluster listing with bridging and rating values is presented in Appendix 8.

5.3.3.1 Interpreting the Concept

In Figure 5.5 below, the construct contains nine clusters, seven of which are distinct. Cluster names and details (cluster bridging and rating value averages) are shown in Table 5.30 below. Specific cluster items listing can be found in Appendix 8.

CLUSTER NUMBER AND NAME	BRIDGING VALUES		IMPORTANCE VALUES	
(brackets show number of items in a cluster)	Average	Level	Average	Level
1. Autonomy (7)	0.80	5	2.88	1
2. Self-determination (8)	0.61	4	3.21	2
3. Unavailability of trained coaches (7)	0.52	4	3.71	5
4. Inconvenience of traditional coaching (6)	0.74	5	3.08	2
5. Challenge/self-fulfilment (4)	0.66	5	3.25	3
6. Financial considerations (4)	0.04	1	3.33	3
7. Arrogance/confidence in self(11)	0.49	3	3.11	2
8. Incompatible with a coach(4)	0.64	4	3.42	4
9. Lack of confidence in a coach (6)	0.46	3	3.36	3

Table 5.30:   Named Clusters for Reasons to Self-Coach with a Summary of Averaged Bridging and Rating Values
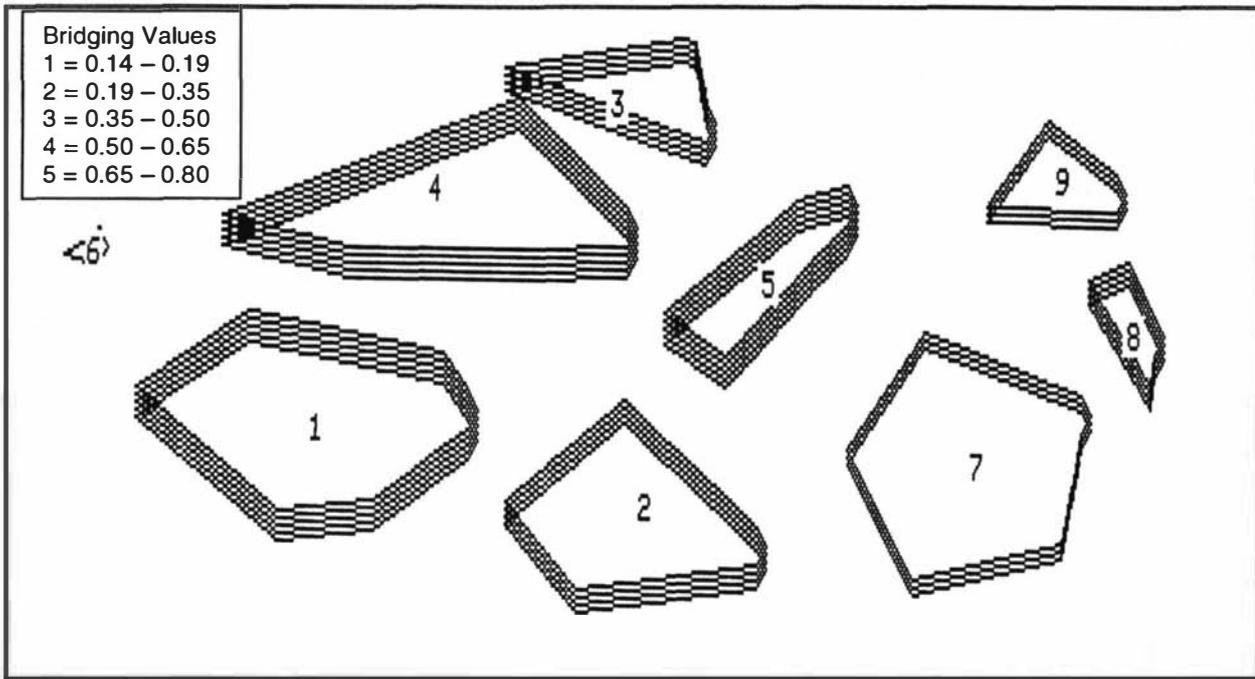
Figure 5.5: Bridging Map for Reasons to Self-Coach

Cluster 1 (autonomy) was named this due to items it contained such as want some control over their coaching, societal influence to be individual, athlete makes the decision and buys into the plan and determined to self-coach at the elite level. Cluster 2 (self-determination) includes independent athletes who like to self-coach, so much information available athletes believe they can self-coach and athlete wants to become a coach so practices self-coaching. Cluster 3 (unavailability of trained coaches) contained no expert coaches where they lived, sparseness of qualified coaches and coaches not available with specific coaching skills required. Cluster 4 (inconvenience of traditional coaching) contained timing awkward to fit family schedule, having a coach is time consuming and coach cannot fit with the athlete's lifestyle. Cluster 5 (challenge/self-fulfilment) included athletes seeking self-fulfilment, acceptance of a challenge and athletes don't want to rely on a coach. Cluster 6 (financial considerations) included too expensive, spend their finances elsewhere and financial reasons. Cluster 7 (arrogance/confidence in self) contained athletes think they know more than a coach, athletes think they don't need a coach, like doing everything by themselves and their

way and athlete knows enough about the sport and doesn't need a coach. Cluster 8 (incompatible with a coach) included coaching procedures are not suited to the athlete, incompatibility with the coach and don't like the discipline that a formal coach puts on them. Cluster 9 (lack of confidence in a coach) contained lack of confidence in a coach, lack of belief in a coach and lack of faith in a coach. Other items may be viewed in Appendix 8.

Figure 5.5 shows the nine clusters where clusters 1, 2, 4 and 7 are large, 3, 5, 8 and 9 are of medium size and cluster 6 is small. This map by far has the highest cluster bridging value averages from all the concepts discussed in the concept mapping section. Cluster 6 has the lowest cluster bridging value average. Clusters 1, 2, 4 and 7 contain between 6 and 11 items, which contribute to the size of the individual clusters. Although, in this case, the high bridging values are more likely responsible for the size of these particular clusters than the amount of items contained in them. The clusters have been stretched as the items contained within them are highly inter-related to items in surrounding clusters and have been frequently sorted with them. Clusters 3, 5, 8 and 9 contain 7, 4, 4 and 6 items respectively. Again these clusters have relatively high cluster bridging value averages, which indicates that the greater number of respondents sorted these items with items from surrounding clusters. They are perhaps a little smaller than the previously discussed clusters on the whole as they contain fewer items. There were no particular items responsible for elevating the cluster bridging value averages of these clusters. All the items had extremely high bridging values. Cluster 6 contains 4 items and has a very low cluster bridging value average which indicates that respondents sorted the items together frequently and perceived these items to be highly related. All four items had very low bridging values.

As can be seen in Table 5.30, items in clusters 1 - 5 and 8, scattered from the left to the far right of the map, have the highest cluster bridging value averages. This strongly indicates that the respondents sorted the items in these clusters quite often with others in the surrounding clusters and were thus perceived by the respondents to contain highly inter-related items. Their cluster linkage levels were 4 - 5. Clusters 3, 7 and 9 have medium cluster bridging value averages with a level 3 linkage. This indicates that the respondents perceived them to have a low to moderate degree of inter-relatedness to surrounding items. Cluster 6 had the lowest cluster bridging value average with a level 1 linkage. Overall, these high cluster bridging value averages are interesting as this indicates that there was no general agreement on where the items should be placed or clustered. This suggests that the construct is ambiguous and that there is a high degree of inter-relatedness of the items.

Spatially, only clusters 3 (unavailability of trained coaches) and 4 (inconvenience of traditional coaching) are closely related. They contain such items as number 46 (no coaches trained in their sport) in cluster 3 and number 43 (athletes forced to by circumstances). Other items may be viewed in Appendix 8, which reveal that the items in both clusters involve dilemmas involved with having a coach. It is understandable why the respondents perceived them to be inter-related.

Travelling left to right on the map in Figure 5.5, cluster 6 (financial considerations) is distinct and located on its own. This cluster was not perceived to be related to any other cluster. Items in this cluster were never or very rarely considered to be related to items in clusters 7, 8 and 9 on the right of the map.

In summary, on the right hand side of the map lack of compatibility and lack of confidence in the coach (clusters 8 and 9) are overriding themes. Autonomy (clusters 1, 2 and 7) dominates the lower portion of the map and coaching inadequacies (clusters 3 and 4) the top. Financial considerations (cluster 6) dominate the far left. Seeking a challenge or a search for self-fulfilment (cluster 5) is a bridging cluster bridging with all the other clusters.

5.3.3.2 Interpreting the Content

The next part of the results presentation relates to the importance that the respondents to this portion of the research placed on the items in relation to the reasons why athletes may self-coach. The items were rated on the following scale:

5   critical reason why an athlete may choose to self-coach - an absolute necessity

4   important reason why an athlete may choose to self-coach - most athletes would self-coach for this reason

3   helpful reason to understand why an athlete may self-coach - an understandable reason

2   unimportant, non-essential, but could be a reason in some cases

1   neither adds nor detracts from why an athlete may self-coach - makes no difference

The perceived importance attributed to each cluster of issues is shown in Figure 5.6 below. An extremely high proportion of the items (43/59) in this construct received a high rating value of between 3.00 - 4.00 indicating the respondents perceived most of the items listed as highly likely to be reasons why an athlete would self-coach.

Only one cluster, cluster 3 (unavailability of trained coaches) rated a level 5, indicating the respondents perceived it to be a critical reason why an athlete may self-coach. This has serious implications for New Zealand sport and such organisations as Coaching New Zealand and the New Zealand Sport Foundation. CNZ is responsible for educating and certifying coaches from the introductory to high performance level and the NZSF is responsible for high performance sport. The respondents to this concept mapping exercise and the questionnaire and interview portion of the research strongly indicated there was a shortage of trained coaches, coaches at the elite level, coaches in their specific sport and coaches living in or near areas where they lived. This issue will be discussed in greater detail in Chapter Six. The next cluster with a level 4 rating, cluster 8 (incompatible with a coach) indicates the respondents perceived this to be an important reason for an athlete to self-coach. This cluster, as can be seen in Appendix 8, has four items with varying rating values averaging to a level 4 value.

Clusters 5 (challenge/self-fulfilment), 6 (financial considerations) and 9 (lack of confidence in a coach) were rated the next level down in importance giving it a level 3. Cluster 5 contained items with similar rating values. I find it surprising for cluster 6 to be rated as an understandable reason why an athlete in New Zealand would self-coach as most athletes do not pay a coach for their services. Coaches are generally paid by the national sport organisation if they are paid at all. Some more professional sports such as golf and tennis have paid coaches. Golf is not a Summer Olympic sport but tennis is and New Zealand only had one representative in the 1996 Games who did not participate in this research. What is more surprising is that this cluster would have had a higher cluster rating value average except that item 20 (spend their finances elsewhere) was given a low rating value and was therefore responsible for lowering the cluster rating value average. This response was not expected and does not fit with sport coaching in New Zealand today.

Cluster 9 contained item numbers 31 (lack of respect in a coach), 33 (lack of faith in a coach), 32 (lack of belief in a coach) and 25 (lack of confidence in a coach) all with rating values between 3.17 and 4.00. Clusters 3 (unavailability of trained coaches) and 9 (lack of confidence in a coach) are inter-related as it is logical to believe that the respondents would have the sentiments expressed in cluster 9. If they believed there was not a sufficient number of trained and expert coaches available in their sport or where they lived to coach them at their elite level, then it is obvious that they would lack confidence, faith, respect and belief in these coaches.

Respondents perceived clusters 1 (autonomy), 2 (self-determination), 4 (inconvenience of traditional coaching) or 7 (arrogance/confidence in self) to be unimportant or to not make any difference to why an athlete may self-coach. Clusters 1 and 7 respectively included items that were responsible for lowering the cluster rating value average. These items were numbers 24 (societal influence to be individual) and 49 (traditionally athletes have done it on their own) in cluster 1 and number 57 (idea of self-coaching becoming more prevalent) in cluster 7. Clusters 2 and 4 had items with relatively similar rating values.
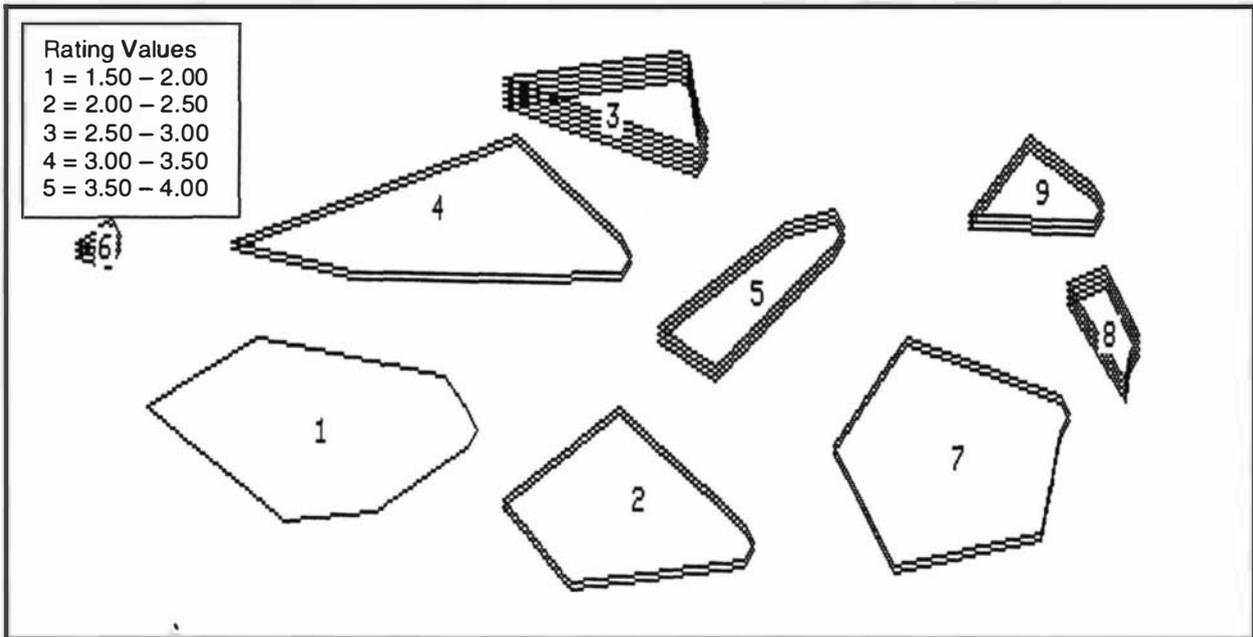
Figure 5.6: Rating Map for Reasons to Self-Coach

5.3.3.3 Synopsis of the Interpretations

Academic research into the reasons why athletes may self-coach has not previously been completed. The reasons unveiled from this concept mapping exercise are logical and bases for further study. There is no other research to compare them with except for the reasons exposed in the interviews and questionnaire administered for this study. The reasons provided in this concept mapping exercise in ranking order are:

- unavailability of trained coaches (1)
- incompatible with a coach (2)
- financial considerations (3)
- challenge/self-fulfilment (3)
- inconvenience of traditional coaching (4)
- self-determination (4)
- arrogance/confidence in self (4)
- autonomy (5).

A summary of the concept mapping exercise for the reasons why athletes may self-coach reveals that distinct concepts were identified but that most were indeterminate. That is, the high cluster bridging value averages indicated that the items were perceived to be highly inter-related but yet still distinct from the other concepts. It is interesting to note that these concepts were similar to the key themes, which emerged from the interview and questionnaire analysis except that they were not as succinct. This may be viewed in Table 5.31 below. Overall, the majority of the items rated highly indicating that they were perceived to be important reasons why athletes self-coached.

Questionnaire and Interview Themes	Concept mapping Synopsis
• Enjoy being alone • Independent athletes who like to coach themselves • Coach trained athlete to coach themselves • Easier not to have to rely on someone else	• Autonomy
• Athlete prefers to self-coach • Idea of self-coaching becoming more prevalent	• Self-determination
• Surpass the technical knowledge of coach • Sport does not have trained coaches • No expert coaches in region they live	• Unavailability of trained coaches
• Coach cannot fit in with their lifestyle • Work, time, and family commitments • Coaches unable to travel overseas with the athlete • Coach is too busy to be with athlete all the time	• Inconvenience of traditional coaches
• Athlete wants to become a coach so practices self-coaching	• Challenge / self-fulfilment
• Financial expense	• Financial considerations
• Believe can coach self • Confidence in ability • No one knows more about the sport • Arrogant athletes who think they don't need a coach • Don't readily accept other people's advice	• Arrogance / confidence in self

• Self-opinionated • Don't need a coach watching all the time	
• Difficulty finding a compatible coach • Coaching procedures aren't suited to the athlete • Coaches too demanding	• Incompatible with a coach
• Need for consistency of coaching • Lack of faith, trust or respect in previous coaches	• Lack of confidence in a coach

Table 5.31: Key Questionnaire and Interview Themes Comparative to the Concept Mapping Exercise Results

5.3.4   Characteristics/Qualities of Athletes who Self-Coach

Respondents to this section of the research sorted and rated 82 characteristics/qualities of athletes who self-coach to form the construct represented by this map. The item cluster listing with bridging and rating values is presented in Appendix 9.

5.3.4.1 Interpreting the Concept

Figure 5.7 below depicts nine clusters. Names and details (cluster bridging and rating value averages) are shown in Table 5.32 below. Full cluster item listings are in Appendix 9.

CLUSTER NUMBER AND NAME (brackets show number of items in a cluster)	BRIDGING VALUES		IMPORTANCE VALUES	
	Average	Level	Average	Level
1. Self-reliance (10)	0.22	1	4.04	4
2. Mental resilience (9)	0.33	2	3.88	4
3. Tenacious application (11)	0.19	1	4.40	5
4. Conviction/passionate attitude (11)	0.39	3	3.76	3
5. Sport as priority (4)	0.23	1	3.00	1
6. Positive cognitive abilities (12)	0.27	2	3.58	3
7. Methodical organisational skills (12)	0.28	2	3.43	2
8. Inner strength (6)	0.55	5	3.77	3
9. Open-minded (7)	0.51	5	3.14	1

Table 5.32:   Named Clusters for Characteristics/Qualities with a Summary of Averaged Bridging and Rating Values
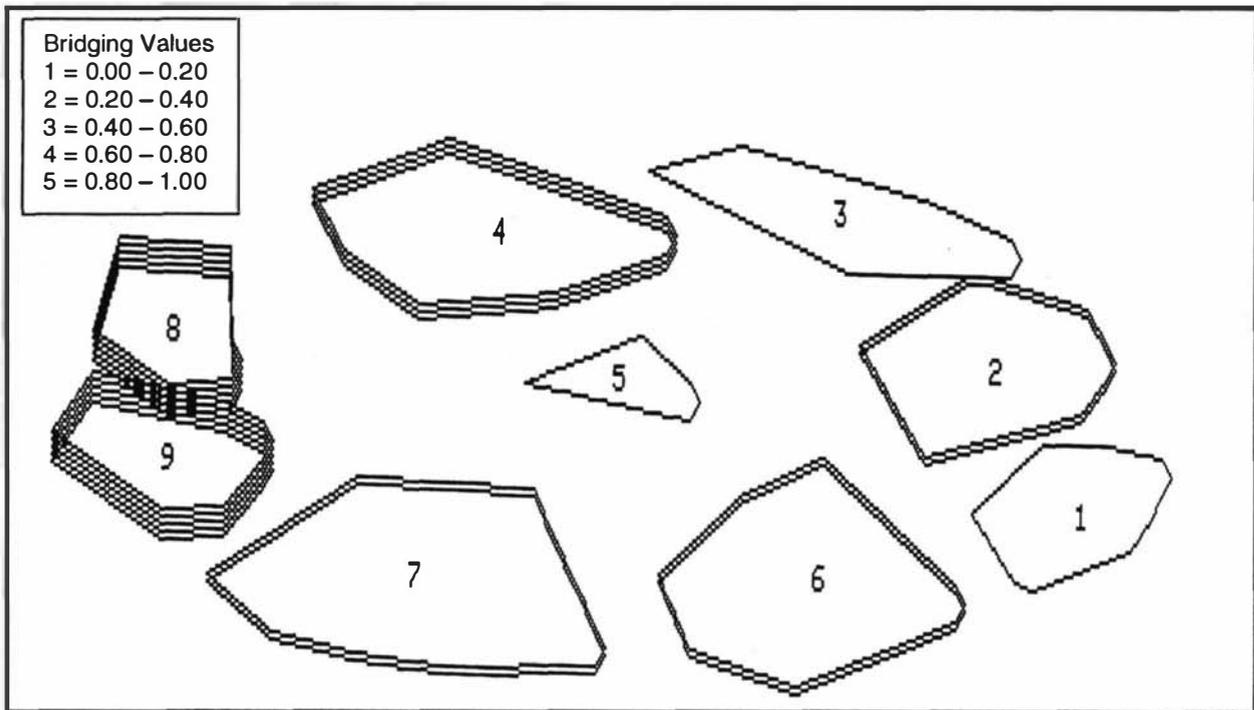
Figure 5.7: Bridging Map for Characteristics/Qualities of Self-Coached Athletes

Cluster 1 (self-reliance) was given this name as it contained items such as self-sufficiency, self-belief and self-determined. Cluster 2 (mental resilience) contained temperament, single-minded and stubborn. Cluster 3 (tenacious application) included diligence, drive, determined and tenacity. Cluster 4 (conviction/passionate attitude) contained healthy fear, focus, have to enjoy it and passionate. Cluster 5 (sport as priority) contained obsessive, selfish and self-centred. Cluster 6 (positive cognitive abilities) self-ability, good work ethic, structured thought processes and objective. Cluster 7 (methodical organisational skills) included management skills, analytical, problem-solver and organisational skills. Cluster 8 (inner strength) contained honest, visionary, patience and relaxed. Finally, cluster 9 (open-minded) included listen to others, take advice, perception and open-minded. Other items in these clusters may be viewed in Appendix 9.

As can be seen in Figure 5.7, clusters 2, 3, 4, 6 and 7 are very large while 1, 8 and 9 are of medium size and 5 is the smallest. The large clusters contain 11 or 12 items each, which

contribute to the size of the cluster as does the higher cluster bridging value averages. Item numbers 2 (confident) and 54 (conscientious) in cluster 2 have high bridging values which increased the cluster bridging value average and therefore the size of the cluster. Cluster 3 has a lower bridging value average, as can be seen in Table 5.32, which means that it is the number of items in this cluster that makes it large. Item 8 (disciplined) has a very high bridging value in comparison to other items in this cluster. It is responsible for making the cluster bridging value average as high as it is. Cluster 7 would have had a lower cluster bridging value average except for item 55 (talented) had a high bridging value and therefore pushed the cluster average upwards. Item 71 (self-reflective) in cluster 6 is responsible for the same thing. Both these clusters' size is therefore due more to the number of items contained in them rather than the high cluster bridging value average. The higher bridging values indicate the items were sorted more frequently with items in surrounding clusters. This generally has the effect of stretching the clusters towards the item with which it was frequently sorted; for example, items 58 (thick skinned) and 75 (prepared to make sacrifices) in cluster 4.

In the medium size clusters, cluster 1 has a low cluster bridging value average but clusters 8 and 9 have the highest cluster bridging value averages on this map. Cluster 1 contains 10 items but the items in this cluster were perceived by the respondents to be similar and related and sorted them together more frequently than with other items. Clusters 8 and 9, whose high cluster bridging value averages may be viewed in Table 5.32, have fewer items. The items with higher bridging values enlarged the cluster sizes as these items were frequently sorted with items in surrounding clusters. These items are numbers 37 (physically strong), 47 (relaxed) and 41 (respect) in cluster 9 and numbers 15 (listen to others), 40 (subservient) and 60 (relaxation) in cluster 8. Cluster 5 has only 4 items and one of the lower cluster bridging

value averages. Both of these occurrences result in the smallness of the cluster. It contained

one item, number 34 (common sense), which raised its cluster bridging value average a little.

Travelling across the map starting from the left, clusters 9, 8 and 4 had the highest cluster

bridging value averages. Clusters 8 and 9 have a level 5 average bridging value and cluster 4,

a level 3, indicating that items within these clusters were sorted frequently with items in the

nearby clusters. On the bottom of the map, clusters 7, 6 and 2 had cluster bridging value

averages, which fall in the midway point of the cluster bridging value averages found in

Figure 5.7. This suggests the items contained within these clusters have a moderate degree of

relatedness to surrounding items. Clusters 3, 1 and 5 had the lowest cluster bridging value

averages. These cluster bridging values indicate that the respondents generally perceived the

items to be related to each other and sorted them together more frequently.

It must be noted that competent was included as a separate item in both cluster 6 (item 3) and

cluster 7 (item 67) as was relaxed in cluster 8 (item 47) and relaxation in cluster 9 (item 60).

These items should have been presented once only as an option within this particular concept

mapping exercise. The ambiguity and uncertainty the respondents may have experienced

could have been avoided or at least minimised if I had included competent and relaxed just

once each. This situation also occurred in cluster 2 where items 27 (stubborn) and 65

(stubbornness) were duplicated but then sorted into the same cluster.

When reviewing the map spatially clusters 9 (inner strength) and 8 (open-minded) and

clusters 3 (tenacious application) and 2 (mental resilience) are closely related to each other.

This is especially true for clusters 8 and 9 as they appear to overlap while clusters 2 and 3

almost overlap. The logic is once again understandable. In discussing clusters 8 and 9, to be

open-minded (item 28), to take advice (item 16), to listen to others (item 15) and to be relaxed (item 60) all in cluster 9, one must be strong physically and internally as the items in cluster 8 also reflect. In clusters 2 and 3 discipline (item 8) and strong-minded (item 22) in cluster 3 are definitely linked to the items in cluster 2. Such links are provided through items such as numbers 65 (stubbornness), 57 (mental attitude) and 26 (single-minded). Tenacious application (cluster 3) demands that mental resilience (cluster 2) be equally available.

In summary, clusters 8 and 9 on the far left of the map represent external characteristics/qualities while clusters 4, 3, 2 and 1 on the upper and right side deal with internal or intrinsic characteristics/qualities that athletes generally possess. These refer to the mental self and the athletes' ability to apply themselves with determination. The lower two clusters, 7 and 6, represent the hard core management skills and the middle cluster, 5, represents just as the name indicates - sport as a priority.

5.3.4.2 Interpreting of the Content

The next part of the results presentation relates to the importance that the respondents to this portion of the research placed on the items in relation to the characteristics/qualities that a self-coached athlete should possess. The items were rated on the following scale:

5   critical for an athlete who self-coaches - an absolute necessity

4   important for an athlete who self-coaches - most good self-coached athletes have this

3   helpful for an athlete who self-coaches - a desirable characteristic

2   unimportant, non-essential, but could assist in some cases

1   neither adds nor detracts from a self-coached athlete - makes no difference

In terms of perceived importance Figure 5.8 below shows the importance attributed to each cluster of issues. Most items (65/82) were rated quite highly (3.28 to 4.80) and overall only four items had value ratings of 1.00 to 2.52. These items were arrogant (item 42 in cluster 1), thick skinned (item 58 in cluster 4), obsessive (item 32 in cluster 5) and subservient (item 40 in cluster 9). Respondents perhaps rated these items as low as they did as they are not characteristics/qualities they themselves would like to possess or see as advantageous to self-coaching. The literature, mainly Orlick (1996), did not mention or recommend these as desirable characteristics/qualities.

There was only one cluster, cluster 3 (tenacious application), with a level 5 rating indicating the maximum importance. It contained items with ratings between 4.40 and 4.80 such as numbers 20, 8, 72, 29 and 48, which may be viewed in Appendix 9. When selecting the key characteristics/qualities for self-coached athletes to possess, 100% of the questionnaire respondents chose discipline (item 8) as the most important. Clusters 1 (self-reliance) and 2 (mental resilience) followed closely behind. Cluster 1 would have been a level 5 cluster except item number 42 (arrogant) received a low rating value which decreased the overall cluster rating value average. This item does not relate to a positive aspect of self-reliance, which the overall cluster represented or to a characteristic/quality a self-coached athlete should possess. It is understandable why it was rated low. Cluster 2 contained items that were all correspondingly rated. The least or less important clusters with levels of 1 or 2 were clusters 5 (sport as priority), 7 (methodical organisational skills) and 9 (open-minded). Cluster 9 would have rated moderately except that item 40 (subservient) rated extremely low which reduced the cluster rating value average.
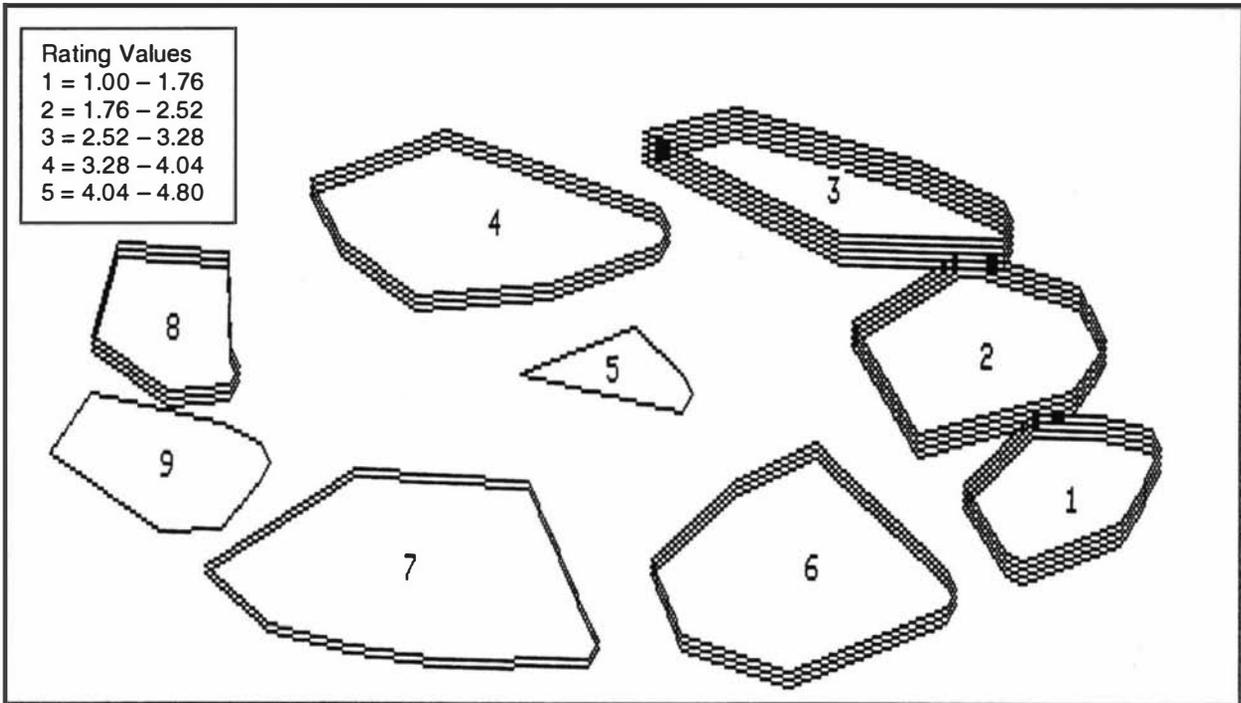
Figure 5.8: Rating Map for Characteristics/Qualities of Self-Coached Athletes

5.3.4.3 Synopsis of the Interpretations

The outcomes from the concept mapping exercise have supported the research of Orlick (1996). Orlick developed the "Wheel of Excellence" which comprises seven essential elements to attain excellence. These elements are commitment, belief, full focus, positive images, mental readiness, distraction control and constructive evaluation. Different names or labels have been given to the nine characteristics/qualities that emerged from this research. This research specifically asked for characteristics/qualities that would be required by an athlete who self-coached and not those required for excellence although excellence was probably considered as inherent in the goals and objectives of self-coaching. The nine characteristics/qualities are:

- self-reliance
- mental resilience
- tenacious application
- conviction/passionate attitude

- sport as priority
- positive cognitive abilities
- methodical organisational skills
- inner strength
- open-minded

A synopsis of the concept mapping exercise for the characteristics/qualities that a self-coached athlete should possess reveals that most of the concepts identified were clear and mainly distinct. A few were indeterminate as revealed by their higher cluster bridging value averages. It is interesting to note that these concepts were similar to the key themes which emerged from the questionnaire and interview analysis as can be viewed on pages 136-139 in this chapter and to the research completed by Orlick (1996). The majority of the items rated extremely high indicating they were perceived to be very important and critical characteristics/qualities to possess when self-coaching.

5.3.5 Steps for Self-Coaching

Respondents to this section of the research sorted and rated 46 steps for an athlete to implement when self-coaching to form the construct represented by this map. The item cluster listing with bridging and rating values is presented in Appendix 10.

5.3.5.1 Interpreting the Concept

The map in Figure 5.9 below depicts seven distinct clusters. Cluster names and details (cluster bridging and rating value averages) are in Table 5.33 below. Appendix 10 shows full cluster item listings.

CLUSTER NUMBER AND NAME	BRIDGING VALUES		IMPORTANCE VALUES	
(brackets show number of items in a cluster)	Average	Level	Average	Level
1. Strategic intent/goal setting (9)	0.27	3	4.47	5
2. Write a strategic plan (7)	0.17	2	4.06	1
3. Write a tactical plan (7)	0.04	1	4.03	1
4. Experimental analysis (4)	0.50	4	4.05	1
5. Identify feedback mechanisms (5)	0.61	5	4.04	1
6. Monitor and review (6)	0.40	4	4.50	5
7. Control mechanisms (8)	0.38	3	4.22	3

Table 5.33:   Named Clusters for Steps to Enhance Self-Coaching with a Summary of Averaged Bridging and Rating Values
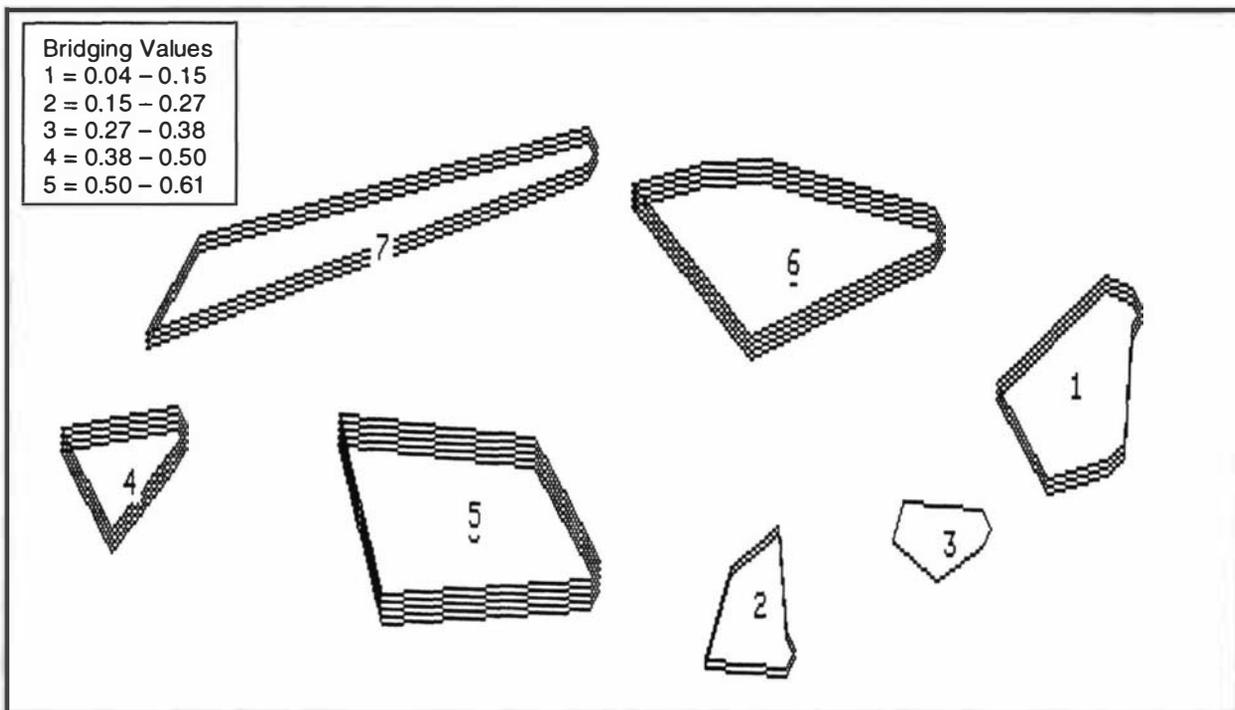
Figure 5.9: Bridging Map for Steps to Enhance Self-Coaching

Cluster 1 (strategic intent/goal setting) was named this as it contained items such as set goals and objectives, identify what you want to achieve and make a vision statement. Cluster 2 (write a strategic plan) included set a progression type plan, write plans systematically and break down training into pre-, in season, and post season. Cluster 3 (write a tactical plan) contained plan all training and competition sessions, make a planning wall chart for each

month and set a plan working backwards from the end output. Cluster 4 (experimental analysis) included experiment with different approaches, trial different training methods and discuss with others. Cluster 5 (identify feedback mechanisms) contained identify strategies for each step, seek assistance of an outside observer and have an outside observer review the plan. Cluster 6 (monitor and review) included think how to do it better, identify skills and drills to correct performance and monitor and revise the plan. Cluster 7 (control mechanisms) contained critique and evaluate the plan and trainings, reflect on what works in each training and accountability at year end by review and analysis. Other items in these clusters may be viewed in Appendix 10.

Figure 5.9 shows that clusters 5, 6 and 7 are large while cluster 1 is of medium size and clusters 2, 3 and 4 are small. Clusters 5, 6 and 7 only contain 5, 6 and 8 items respectively so it is not necessarily the number of items in these clusters contributing to the largeness of the clusters. Cluster 5 contains high bridging items which means they were perceived to be inter-related to items in surrounding clusters and were sorted frequently with these items. This has caused the cluster size to be stretched in all directions. The highest bridging item, number 38 (incorporate flexibility) was accountable for elevating the cluster bridging value average. Cluster 6 also has a relatively high cluster bridging value average. Items 16 (identify strengths and weaknesses) and 33 (keep a journal for review) in cluster 6 are responsible for increasing the size of this cluster. They have high bridging values indicating that they too were sorted more frequently with items in surrounding clusters. Cluster 7 has the most items of these three clusters but items 13 (know world standards as a guide) and 44 (accountability at year-end by revisions and analysis) and to some extent item 14 (analyse previous performances) are responsible for the drawing out of this cluster. These items were responsible for augmenting the cluster bridging average value and for bridging this cluster to

items in surrounding clusters with which they were often sorted. It also has a relatively high cluster bridging value average.

Cluster 1 contains the greatest number of items but has a lower cluster bridging value average. This indicates that the items in this cluster were generally perceived to be related to each other and were sorted together more often than with items in nearby clusters. Of the smaller clusters, clusters 2 and 3 contain 7 items and have low cluster bridging value averages indicating these items were perceived to be closely related and were sorted together more frequently than with items in surrounding clusters. Cluster 4, with only 4 items, would have been smaller except item 3 (identify where you are) with an extremely high bridging value, stretched the cluster. It was also this item that was responsible for increasing the overall cluster bridging value average. Reference to Table 5.33 and Appendix 10 provides more information on the cluster bridging value averages and individual items respectively.

Starting on the left of the map clusters 4, 5, 7 and 6 have high cluster bridging average values. Overall, clusters 4 and 5 contain items that were sorted most frequently with items in the nearby clusters. Items contained in clusters 7 and 6 were sorted less frequently with items in nearby clusters than clusters 4 and 5 but more frequently than items in clusters 2, 3 and 1. Clusters 2, 3 and 1 on the right side of the map are concepts that are closely related which their low cluster bridging averages as seen in Table 5.33 indicate. The items in these clusters were generally perceived to be related to each other and were sorted together more often than with other items in nearby clusters. The highest cluster bridging value averages on this map, level 4 - 5, were in clusters 4, 5 and 6 while clusters 1 and 7 had level 3 values. The lowest cluster bridging value average, level 1, was found in cluster 3.

Spatially, none of these clusters are closely related. These seven clusters were perceived to be distinct from each other as can be seen by the location of the clusters on the map in Figure 5.9. In summary, on the left side of the map cluster 4 represents an analytical segment of the map. On the top of the map clusters 7 and 6 represent control mechanisms and on the right side clusters 1, 2 and 3 development of goals and programme plans. On the bottom of the map cluster 5 identifies various feedback mechanisms available.

5.3.5.2 Interpreting the Content

The next part of the results presentation relates to the importance that the respondents to this portion of the research placed on the items in relation to effective steps for self-coaching. The items were rated on the following scale:

5   critical step for an athlete who self-coaches - an absolute necessity

4   important step for an athlete who self-coaches - most good self-coached athletes do this

3   helpful step for an athlete who self-coaches - a desirable step/process

2   unimportant, non-essential, but could assist in some cases

1   neither adds nor detracts to steps required to self-coach - makes no difference

In terms of perceived importance Figure 5.10 below shows the importance attributed to each cluster of issues. Only 18/46 of the items in this construct rated highly between the values of 4.28 to 5.00. Only three items overall were rated the least important, between 3.20 and 3.56. Clusters 1 and 6 received a level 5 rating value. That is, the respondents thought them to be critical for an athlete to self-coach. The items in cluster 1, which received high rating values are numbers 1, 2, 4, 20 and 5 and in cluster 6 numbers 8, 15, 26 and 16. These items can be

seen in Appendix 10. The above mentioned items in cluster 1 all refer to identifying that which the athlete wants to achieve by setting goals, objectives and steps to gain the desired end outcome by implementing good organisation and preparation principles. These items as well as the items in cluster 6 have been previously identified in the management literature as necessary steps to consider when completing planning of any sort. Clusters 2 - 5 received a level 1 rating value indicating respondents thought these clusters made no difference nor added or detracted to steps required to self-coach. The low rated items, rated between 3.20 and 3.56, were scattered throughout clusters on the bottom of the map. They were numbers 39 (have an outside observer review the plan) in cluster 5, 21 (write plans systematically) in cluster 2 and 42 (make a planning wall chart) in cluster 3. These low rated items are suggestions but not necessary steps to ensure success in planning for self-coaching. The highly rated items are distinctly linked to management processes and considered necessary to develop and achieve a goal oriented plan.

Rating Values
1 = 3.20 – 3.56
2 = 3.56 – 2.92
3 = 2.92 – 4.28
4 = 4.28 – 4.64
5 = 4.64 – 5.00
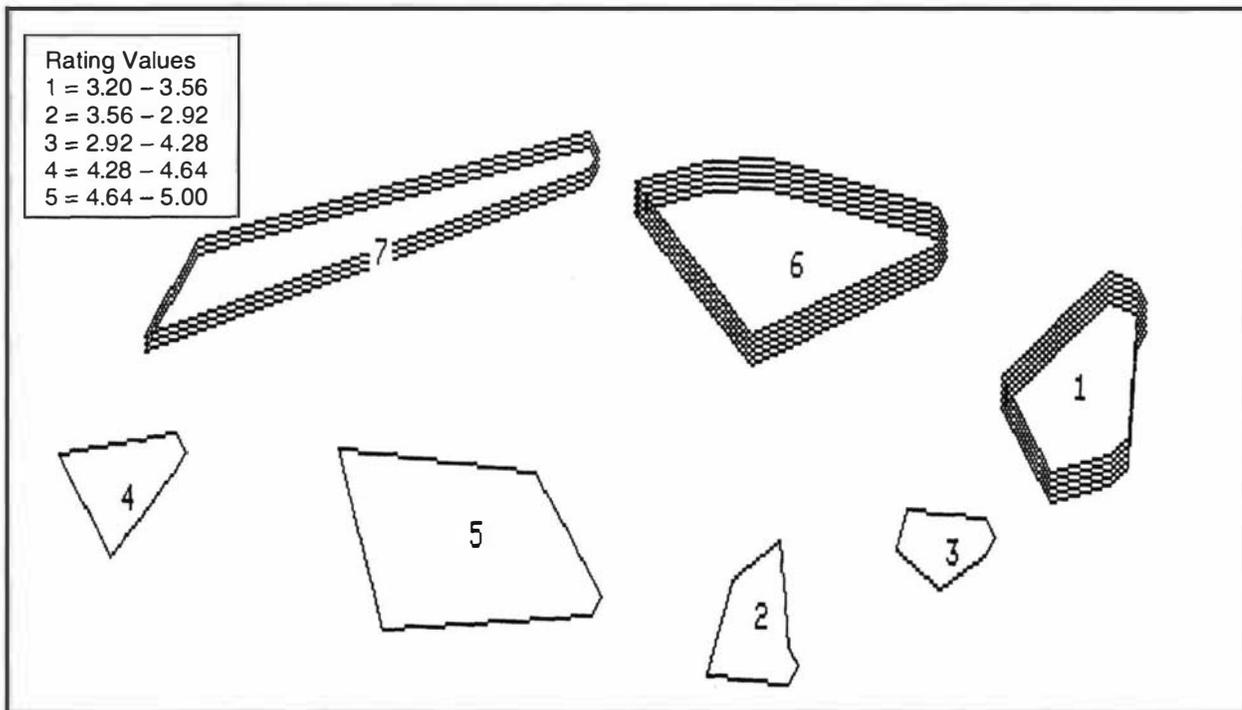
Figure 5.10: Rating Map for Steps to Enhance Self-Coaching

5.3.5.3 Synopsis of the Interpretations

The steps to enhance self-coaching, which emerged from this research are:

- strategic intent/goal setting
- write a strategic plan
- write a tactical plan
- experimental analysis
- identify feedback mechanisms
- monitor and review
- control mechanisms.

These steps are not very different from management based planning guidelines. They do not add anything new to the management literature but they do to the sporting field and in particular to athletes who coach themselves. These steps must be explained clearly to a self-coached athlete so they can be understood and implemented to enhance their self-coaching experiences. Basically, a management technique is being adapted and applied to a sporting situation. What must be determined now is how athletes can apply these steps to their personal circumstances and understand their application. This will be discussed in Chapter Eight.

A synopsis of the concept mapping exercise to identify steps which would enhance self-coaching reveals that seven clear and distinct constructs were identified. It also identifies a few that were somewhat indeterminate or blurred as the higher bridging values indicate but were still perceived as distinct from the other concepts presented. It is interesting to note that these concepts were similar to the key themes, which emerged from the questionnaire and interview analysis as can be seen in Table 5.34 below. This information is new to the sporting literature in relation to self-coaching but new management planning steps have not been

introduced. Overall, the concepts rated in the middle of the road indicating they were perceived to be somewhat important as steps to enhance self-coaching.

Questionnaire and interview Themes	Concept Mapping Synopsis
• Identify personal philosophy • Identify a vision • Set goals	• Strategic intent / goal setting.
• Develop a plan of action	• Write a strategic plan
• Develop a plan of action	• Write a tactical plan
	• Experimental analysis
• Develop self-awareness and self knowledge	• Identify feedback mechanisms
• Observe and self-reflect • Make changes/corrections • Reassess your performance	• Monitor and review
• Assessment of your performance	• Control mechanisms

Table 5.34:   Key Questionnaire and Interview Themes Comparative to the Concept Mapping Exercise

5.3.6   Strategies to Enhance Self-Coaching

Respondents to this section of the research sorted and rated 89 strategies to enhance self-coaching to form the construct represented by this map. The item cluster listing with bridging and rating values is presented in Appendix 11.

5.3.6.1 Interpreting the Concept

Shown in Figure 5.11 below, this map portrays 11 clusters, seven of which are distinct while two sets of clusters overlap. Cluster names and details (cluster bridging and rating value averages) are shown in Table 5.35 below. Appendix 11 has a full list of the cluster items.

CLUSTER NUMBER AND NAME	BRIDGING VALUES		IMPORTANCE VALUES	
(brackets show number of items in a cluster)	Average	Level	Average	Level
1. Visual feedback (5)	0.53	5	3.52	2
2. Physical/mental programming (9)	0.13	1	3.98	4
3. Cognitive roles (9)	0.35	3	4.56	5
4. Visual learning (4)	0.64	5	3.45	2
5. Training support (7)	0.54	5	3.51	2
6. Technological aids (10)	0.14	1	3.28	1
7. Outside feedback (11)	0.41	3	3.15	1
8. Athlete information sources (8)	0.27	2	3.20	1
9. Other information sources (11)	0.26	2	2.96	1
10. Expert information sources (9)	0.27	2	3.56	2
11. Experiential learning (6)	0.54	5	4.03	4

Table 5.35: Named Clusters of Strategies for Self-Coaching with a Summary Cluster Bridging and Rating Value Averages
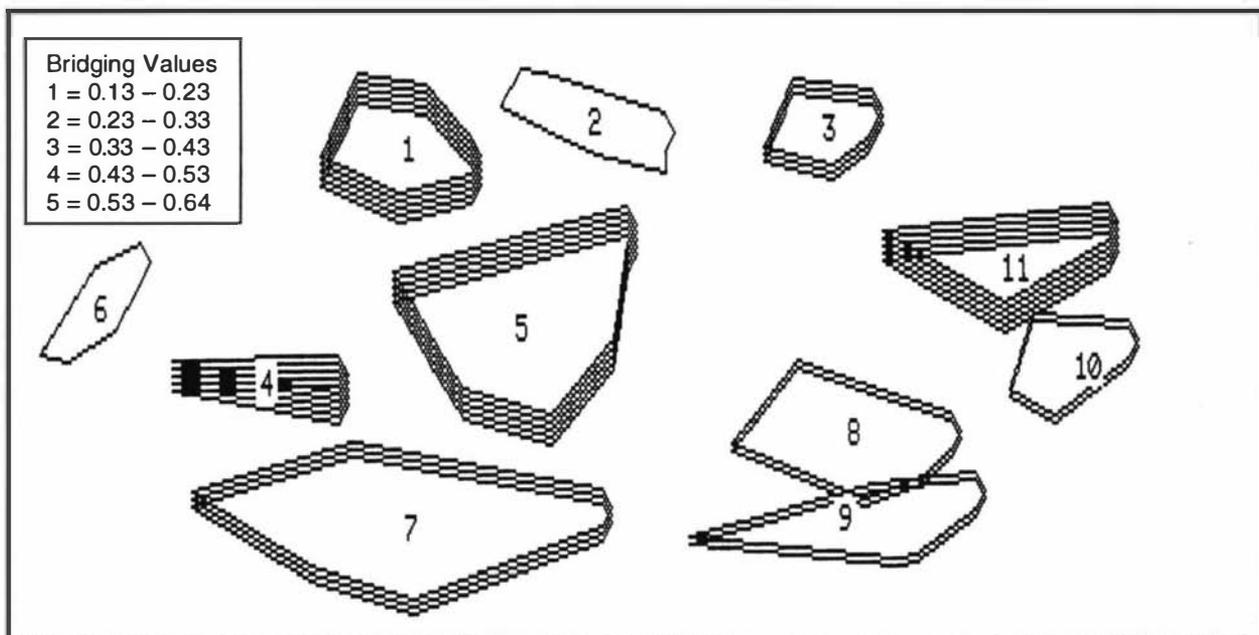
Figure 5.11: Bridging Map for Strategies to Enhance Self-Coaching

Cluster 1 (visual feedback) was named this as it contained such items as videos of yourself for analysis, watch your own performance and use mirrors to watch yourself. Cluster 2 (physical/mental programming) included feedback from your body, train at convenient times for your body and devise a planning calendar. Cluster 3 (cognitive roles) included awareness

of goals to be achieved, know your strengths and weaknesses and constantly thinking. Cluster 4 (visual learning) contained videos of major international competitions, video of elite athletes and listen to audiotapes. Cluster 5 (training support) contained train with other elite athletes, train with the best athletes possible and train with athletes from other countries. Cluster 6 (technological aids) included sport science testing, electronic testing devices and testing the equipment. Cluster 7 (outside feedback) contained get feedback from a mentor or outside observer, outside observer/advisor as a sounding board and outside influence to offer feedback. Cluster 8 (athlete information sources) included discussions with other elite athletes, sound off with training partner and share knowledge with other athletes. Cluster 9 (other information sources) included contact authors of resource books, keep up to date on new information, note what other sports do and reading books, magazines and journals. Cluster 10 (expert information sources) contained ask questions of other elite athletes, talk to coaches from around the world and attend coaching seminars. Finally, cluster 11 (experiential learning) contained be open to ideas and change, trial and error and experimenting with new training methods. Other items in these clusters may be viewed in Appendix 11.

Figure 5.11 shows the clusters are of varying sizes. Clusters 5 and 7 are largest with clusters 1, 2, 8, 9 and 11 next in size leaving the smaller clusters to include 3, 4, 6 and 10. Clusters 5 and 7 both contain relatively high bridging items as can be seen in Appendix 11. Even though cluster 5 contains fewer items it is almost as large as cluster 7. This is because its cluster bridging value average is higher and the high bridging values of the individual items. This indicates that the items contained in these clusters were often sorted with items in neighbouring clusters, therefore the cluster boundaries are stretched towards these neighbouring clusters. Items 82, 58 and 55 in cluster 7 (outside feedback) are mainly responsible for stretching this cluster. Items 58 (having a training partner) and 55 (build a

partnership) are logically pulled towards cluster 5 (training support). Linking items in cluster 5 that were pulled towards cluster 7 are items 86 (train with the best athletes possible) and 48 (observe other elite athletes). It was these items in particular that would have been sorted with items in each of these clusters.

Table 5.35 notes that clusters 1 and 11 have high cluster bridging value averages and that they both have a low number of cluster items. It is the high bridging items that are responsible for increasing the size of the clusters. This indicates that the items within these clusters were also sorted frequently with items in surrounding clusters suggesting that there was a high degree of inter-relatedness of these items. For example, item 57 (simulation games) in cluster 1 bridges with item 50 (observe and analyse opposition) in cluster 5. Clusters 2, 8 and 9 have low cluster bridging value averages indicating that the items contained within these clusters were perceived to be closely related to each other and were sorted together more often than with other items in surrounding clusters. These clusters also contain the highest number of items contained in any of these clusters. Cluster 2 included bridging item values ranging from 0.03 to 0.30. The three highest, item numbers 40, 51 and 84, would have been responsible for increasing the cluster bridging value average and stretching the cluster size as all the other items had extremely low bridging values. These items stretched the cluster towards cluster 3 (cognitive roles) as these items, which can be viewed in Appendix 11, have cognitive implications. Cluster 9 is stretched a little due to item numbers 8 (feedback from what other competitors are doing), 10 (bounce ideas off another person) and 15 (seek advice from someone in another sport) which have the highest bridging items of these clusters. It is logical that these items were often sorted with items in cluster 8 (athlete information sources). They all indicate that information is being sought from an outside athlete source.

Of the smaller clusters 3, 6 and 10 have lower cluster bridging value averages while cluster 4 has the highest but also the fewest number of items. Item 39 (listen to audiotapes) in cluster 4 bridges with cluster 6 (technological aids) as audiotapes were perceived to be a technological aid by some of the respondents. The remaining three items in cluster 4, all with bridging values of 0.51, bridged with cluster 5 and cluster 7. Clusters 3, 6 and 10 contained items that were sorted together frequently and therefore the items are located closely together causing the cluster sizes to be smaller.

Travelling from the left side of the map in Figure 5.11, cluster 6 had a cluster bridging value of 0.14 indicating that the items contained within this cluster were perceived to be closely related to each other and were sorted together more often than with other items. It had a level 1 linkage.

Clusters 1, 3, 4, 5, 7 and 11 have a level 3 and generally higher bridging value indicating that the items within these clusters were sorted more frequently with items in nearby clusters. This suggests that there is some perceived ambiguity and a high degree of inter-relatedness of the items contained in these clusters with surrounding clusters. The respondents to this concept mapping exercise had no general agreement where these items fitted into the concept of strategies to enhance self-coaching.

To the right of the map is cluster 2, which had the lowest cluster bridging value average and a linkage level of 1. The next clusters with low bridging values were clusters 8, 9 and 10 also implying as in cluster 2, that the items in these clusters were considered to be generally similar. The low bridging values indicate the items in this cluster were perceived to be related to each other and were sorted together more often than with other items in any other cluster.

Cluster 3 contained nine items with bridging values ranging from 0.27 to 0.50 giving it a middle of the road cluster bridging value average.

It is again interesting to analyse where the concepts are placed on the map when examining the overall construct. The overlapping clusters, clusters 8 (athlete information sources) and 9 (other information sources) and clusters 10 (expert information sources) and 11 (experiential learning) indicate the items contained in these clusters were often sorted with items in the cluster with which they overlap. Clusters 8 and 9 both contain items with reference to how athletes could gain needed information. Clusters 10 and 11 refer to strategies athletes could use to learn and to gain knowledge to extend themselves.

In summary, on the left and to the bottom middle of the map clusters 6 (technological aids), 1 (visual feedback), 4 (visual learning) and 7 (outside feedback) deal with a variety of feedback devices. On the top right side of the map clusters 2 (physical/mental programming) and 3 (cognitive roles) relate to cognitive and physical developments. Clusters 11 (experiential learning), 8 (athlete information sources), 9 (other information sources) and 10 (expert information sources). on the right side of the map all relate to knowledge development. Cluster 5, training support located in the middle of the map, is a bridging cluster and perceived to be related to most clusters.

5.3.6.2 Interpreting the Content

The next part of the results presentation relates to the importance the respondents to this portion of the research placed on the items in relation to strategies able to enhance self-coaching. The items were rated on the following scale:

5   critical strategy for an athlete who self-coaches - an absolute necessity

4   important strategy for an athlete who self-coaches - most good self-coached athletes would do this

3   helpful strategy for an athlete who self-coaches - a desirable strategy

2   unimportant, non-essential strategy, but could assist in some cases

1   neither adds nor detracts to enhance self-coaching - makes no difference

Less than half of the items (37/89) in this construct were rated level 3 or above. The greatest importance or highest rating value level 4 - 5, was placed on clusters 2 (physical/mental programming), 3 (cognitive roles) and 11 (experiential learning). The least importance or lowest rating value level 1 - 2, was placed on all the remaining clusters. No clusters averaged at the middle range, level 3. Cluster 3 rated the most important as can be seen in Table 5.35. It contained items with high rating values such as numbers 71 (goal setting), 73 (reflect on your performance) and 77 (know your strengths and weaknesses). These items are supported in other concept themes discussed earlier in this section. The remaining items and their item rating values may be seen in Appendix 11. Clusters 6 - 9 rated the least important. I feel that several of these items are important and once the concept of self-coaching is better understood universally, the importance of these items will be realised. Items such as number 20 (sport science testing), 25 (heart rate monitors) and 83 (digital cameras) in cluster 6 (technological aids) are common methods many self-coached athletes interviewed suggested and used by many triathletes with whom I train. Cluster 7 (outside feedback) contained items such as numbers 58 (have a training partner) and 63 (outside influence to offer feedback) that were also strategies the interviewees commonly utilised and recommended. I do not believe that an athlete can self-coach without feedback from an outsider whether it is a training partner, coach, mentor, observer or advisor. Cluster 8 (athlete information sources) falls in

the same category as cluster 7 as it included items such as numbers 69 (sound off with a training partner) and 11 (spend time with other elite athletes). Many of the interviewees said they had learned immensely from other athletes with whom they had trained, observed or had discussions. Finally, cluster 9 (other information sources) included feedback from other competitors (item 8) and keep up to date on new information (item 37). Item 8 is similar to those contained in clusters 7 and 8. Item 37 is important because if it is the responsibility of the athlete to initiate all activities to attain set goals and be in charge of their own destiny, then they have to be aware of the latest information and technology that can assist them to succeed in their endeavour.

Rating Values
1 = 2.96 – 3.28
2 = 3.28 – 3.60
3 = 3.60 – 3.92
4 = 3.92 – 4.24
5 = 4.24 – 4.56
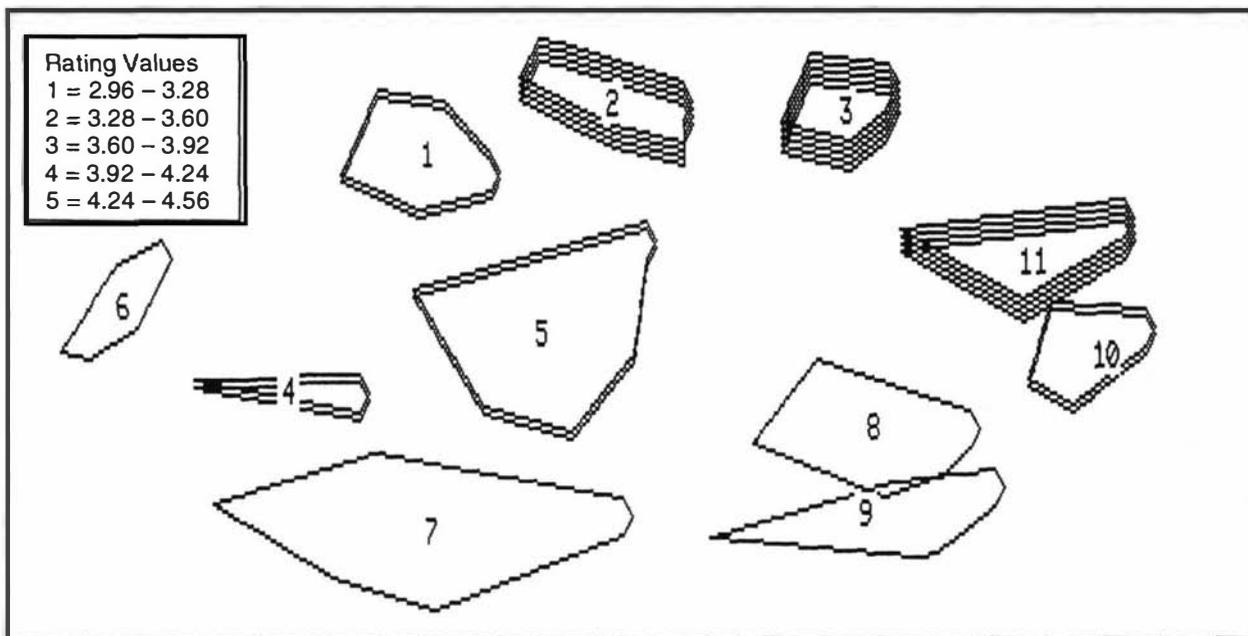
Figure 5.12: Rating Map for Strategies to Enhance Self-Coaching

5.3.6.3 Synopsis of the Interpretations

Once again this area of self-coaching has not been previously researched academically so there is little literature to compare the outcomes from this concept mapping exercise. Newman (1986) suggested the use of sport science, which relates to the technological aids cluster. The physical/mental programming cluster includes the use of a training diary as

suggested by Gardner (1993), Moortgat (1996) and Newman (1986) and the other information sources and visual learning clusters include reading, research and viewing documentaries and videos as recommended by Hall (1993) and Kneer and McCord (1995). The strategies, which emerged from this section of the research listed below, will be valuable in enhancing the efforts of self-coached athletes. The strategies are as follows:

- visual feedback
- physical/mental programming
- cognitive roles
- visual learning
- training support
- technological aids
- outside feedback
- athlete information sources
- other information sources
- expert information sources
- experiential learning

A summary of the concept mapping exercise for the strategies to enhance self-coaching reveals that some distinct concepts were identified but a few were indeterminate or blurred. The high bridging values and overlapping of these concepts indicate this. It is interesting to note that these concepts were similar to the key themes which emerged from the questionnaire and interview analysis except the questionnaire responses did not provide as succinct defining labels or names. Table 5.36 below shows the comparisons. Overall, the concepts did not rate highly indicating that more often than not they were perceived to be, on average, helpful strategies for enhancing self-coaching efforts. Once again, when self-coaching is a better-understood concept, I believe the importance rating for these items will be realised and be given more value and appreciation.

Questionnaire and Interview Themes	Concept Mapping Synopsis
• Video analysis • Use of mirrors	• Visual feedback
• Annual plans • Training plans • Goal setting • Long-term planning programmes	• Physical/mental programming
• Self-reflection • Know your strengths and weaknesses • Self-analysis • Visualisation • Reflect on your performance	• Cognitive roles
• View other elite athletes in same discipline • Videos of elite athletes and world champions	• Visual learning
• Competition diary / training diary	• Training support
• Heart monitors • Sport medicine tools • Electronic testing devices	• Technological aids
• Mentor feedback • Outside observer or advisor	• Outside feedback
• Training partner • Discussions with other athletes • Talk to more experienced athletes • Peer feedback • Modelling other athletes	• Athlete information sources
• Books, journals, magazines, documentaries • Time standards, performance standards, statistics • Specialist assistance	• Other information sources
• Ask questions of elite athletes	• Expert information sources

• Train with elite athletes from other countries	
• Learn from mistakes • Experience and trial and error • Learn from your coaching experiences • Self-coaching workshops	• Experiential learning

Table 5.36: Key Questionnaire and Interview Themes Comparative to the Concept Mapping Exercise Results

5.4 SUMMARY AND REVIEW

This chapter reported the results from the self-administered questionnaire, the semi-structured interviews and the concept mapping exercise. The results were supplemented by quotes from the research participants and quotes or anecdotes from athletes written about in printed publications who experienced similar self-coaching situations to those of the research participants. The questionnaire and interview results were recorded together as they supported each other and were inter-twined. The concept mapping results were summaries and analyses of the questionnaire and interview results and therefore were reported separately. Useful information emerged from this triangulated means of data collection.

The results show that the responses provided by the participants were consistent as seen through the triangulated use of the questionnaires, the interviews and concept mapping. This adds validity and reliability to the results. The questionnaire respondents were often given options in the closed questions but the interviewees were asked the same or similar questions in an open-ended format. The responses were similar and supported each other. The concept mapping exercise allowed the participants themselves to determine terminology or labels for specific aspects of each theme being researched. These results will be discussed and further expanded upon in Chapters Six and Seven.

RESULTS IN CONTEXT: FORMAL COACHING

We are what we repeatedly do. Excellence, then, is not an act, but a habit (Aristotle).

6.1   OVERVIEW

This chapter will extend the results presented in Chapter Five. The definition of formal coaching will be discussed. The issues of formal coaching facing high performance sport in New Zealand in relation to coach education, certification and funding will also be contemplated.

6.2   DEFINITION OF FORMAL COACHING

It was important to gain an understanding of what the respondents' perceptions of formal coaching were, that so when self-coaching was discussed the similarities or differences and the problems inherent in formal coach education would be realised. The main responses supplied in Chapter Five were that the formal coach: had a coaching certification; set the programme and supervised the workouts; passed along knowledge, information and experience; and maximised the athlete's potential or extracted the best out of the athlete. Some of these components have been included in definitions of respected researchers and authors in the sport-coaching field.

The first point in defining a formal coach included that the coach be certified. This does not seem to be a reality in elite coaching spheres in New Zealand. The 1996 Olympians and past Olympic medal winners reported that they self-coached due to the void of coaches - formal or certified - at the elite level. In reality, there is a void in all levels of coaching, from the introductory to the elite levels. Results from this research strongly indicate that the

New Zealand Olympians believed that there were not enough elite level coaches, certified coaches or sport-specific trained coaches in this country and that there was not enough access to elite level coaches in the localities in which they lived.

The number of highly certified elite coaches is radically low. Sue Chalmers, Coach Development Officer for CNZ, reported that only 18 coaches were certified in the newly adopted Level Three course which concluded on the 20 June 1999 and no coaches are currently being certified at Level Four, also known as the High Performance Programme (personal communication, 26 November 1999). It is interesting to note that according to Iain Ansell, Manager Support Services for the New Zealand Sports Foundation, the Level Four course and the High Performance Programme are not the same. The NZSF High Performance Programme comprises "invitation only" seminars or workshops and coaches do not get certified (personal communication, 23 December 1999). CNZs Level Four course is advertised in their documentation but is not a programme currently on offer.

Of the 97 members of the 1996 Olympic team who required elite level coaching, it is not a surprise that an extremely high percentage (just over 90%) reported that they self-coached. There just were not a sufficient number of coaches, certified or elite, to support them in the manner they required. It is no wonder then that New Zealand Olympians have expressed the need for increased numbers of certified elite coaches.

Mark Iverson, formerly responsible for the North Harbour Coaches Club under Sport North Harbour, supports this observation. His expressed opinion on the status of elite coaches in New Zealand seems to be a common one. He felt that the biggest limiting factor to success in sport was not the lack of money, facilities, equipment or potential high level athletes but the

lack of highly qualified, specialised and motivated professional coaches available in New Zealand (Iverson, 1998).

The second key characteristic expectation of a formal coach was that they set the programme and supervised the workouts. This also did not seem to be a regular occurrence. Some of the New Zealand Olympians had coaches that set programmes but who did not attend (many) training sessions. Several of the Olympians also felt that the coaches had already passed on all their knowledge, information and experience (the characteristic required) by the time they had reached the elite level, so the athletes did not need their guidance in these particular areas. This is also expressed from the coach's perspective. Richard Tonks, who helped prepare rowers Philippa Baker and Brenda Lawson for the Atlanta Olympics, moved aside just prior to the Games. "Richard felt he couldn't do anything more for them as a coach" and let them be (Sanders, 1996, p.B3). Tonks, a very capable coach, dealt with ongoing relationship problems of Baker and Lawson, which he attributes toward his decision to leave.

The last coaching characteristic was that the athlete's potential was maximised or that the best was brought out of them. This could not stand-alone and would probably not happen if all the other aforementioned points were not addressed.

When one considers how New Zealand Olympians define formal coaching it is obvious that their needs are not being fulfilled. This void must be addressed.

6.2.1   Coach Education

Coaching New Zealand is the organisation responsible for developing, training and certifying coaches in New Zealand. In CNZs 1996/1997 Annual Report and Statement of Accounts, their mission was defined as "encouraging coaches to be qualified" (p.2). Their objectives

discussed improving the quality of coaching, enhancing the professional status of coaches and operating a nation-wide coach education scheme where coaches could be certified.

CNZ was a constitutionally independent body until October 1997. In October 1996 the Hillary Commission expressed concerns about the operations of CNZ and its ability to meet the Commission's specified and agreed outcomes (Coaching New Zealand, 1997). Based on the Commission's concerns, CNZ developed a plan to carry the organisation into the twenty-first century but to no avail. The Hillary Commission consumed CNZ under their umbrella. CNZ had minimal funds and staff and the Commission felt they had stability and growth opportunities on offer for CNZ to flourish.

A Heads of Agreement was drawn up and approved by the CNZ Executive and the Hillary Commission for the take over. Unfortunately not all the agreed terms were followed. The move to the Hillary Commission was considered a total disaster by the coaching fraternity, as has the loss of CNZ as an independent organisation working for the development of coaches in New Zealand.

One such example of a failure to meet the terms of the Agreement is the hosting of a conference specifically for coaches. In 1997 the Partners in Performance Conference was held as the combined national conference of Sport Science New Zealand (SSNZ), Sports Medicine New Zealand (SMNZ) and Coaching New Zealand. Many attendees with an interest in coaching felt the conference serviced the needs of the sport scientists and sport medical people but not theirs. The six keynote addresses all dealt with sport science or sport medical areas. They were:

- What can the Study of the Perceptual-Motor Skills of Experts Contribute to the Practical Enhancement of Sports Performance?

- When to Return to Collision Sports after Concussion.

- The Role of the Mid-Torso Stabilisers, Hip Flexors, Extensors, Adductors and Abductors in Sprint Performance.

- Lumbar Spine Injuries in Athletes.

- The Pilates Method: A Functional Conditioning Programme Incorporating Dynamic Stability for the Athlete.

- Recovery in Training and Competition (Partners in Performance 1997 Conference Programme Collected Abstracts, 1997).

Minimal attention was paid to the coaching discipline over the three-day conference programme. I presented this Doctoral research and as a delegate with an interest in coaching, I agree with others who wished for more coaching-specific presentations. SSNZ offered a conference in 1998 without a coaching-specific stream but in 1999 they collaborated with CNZ where a coaching-specific stream eventuated.

The coaching fraternity strongly believe that there should be a coaching-specific conference. This term, written into the Heads of Agreement, was not adhered to. The general concern amongst coaches is that they are undervalued. One coach I spoke to on this topic said "nobody gives a damn about us coaches - coaches have to be appreciated".

6.2.2   Coaching Courses in New Zealand: What is Available?

A coach education structure, initially targeting only community level coaches, was implemented in New Zealand in 1987. According to the 1997 *Principles of Sports Coaching Level Two Manual*, CNZ now offers six coach accreditation programmes ranging from an

introductory course, to one for high performance coaches, to one for coaching athletes with disabilities (see Table 6.1). But, in the CNZ Coach Education brochure (April, 1999) only five coach accreditation programmes are presented (see Table 6.2). Tables 6.1 and 6.2 have discrepancies in the number of courses CNZ offers, the number of hours required completing such courses and some of the pre-requisite requirements. This in itself is fine as it indicates that CNZ have completed a review of their courses and updated them hopefully based on the expressed needs of the coaching fraternity. As the *Principles of Sports Coaching Level Two Manual* (1997) is currently being used, a footnote should have been included in the 1999 Coach Education brochure specifying that all other such tables were void and out of date. This would decrease the confusion of potential coaches seeking this information. I had trouble figuring out what courses were being offered, what the content was, how many hours were required and what the pre-requisites were.

Target Group	Purpose	Pre-requisites	Assessment	Time (hrs)
0 First time coaches, parents and volunteers	An introduction to basic coaching concepts.	None	No assessment requirements	3.5 workshops
1 Beginner coaches, teachers, parents and volunteers	How to plan, conduct and evaluate a safe, effective coaching session at the novice level.	None	Workbook Coach Self Analysis Practical Assessment NZQA Units	15 workshop 20 self directed
2 Coaches seeking either: more knowledge in an introductory context; or to coach at a higher level	How to plan, implement and evaluate a developmental series of coaching sessions.	CNZ Level One or RPL equivalent	Workbook Coach Self Analysis Practical Assessment NZQA Units	25 workshop 40 self directed
3 Experienced coaches working with performance athletes	The application of sport science to improve performance and examination of personal coaching approach and methods.	CNZ Level Two or RPL equivalent	Workbook Practical Assessments NZQA Units	70 workshop 100 self directed
HP Coaches of age group or elite national and international teams	To further enhance existing high performance coaching skills and knowledge.	Refer CNZ High Performance Coaches Handbook		
CAD Coaches, programme co-ordinators, administrators of athletes with disabilities	To increase understanding and awareness of athletes with disabilities and the special considerations associated with coaching these athletes.	None	Workbook Practical Assessment NZQA Units	15 workshop 10 self directed

Table 6.1:   CNZ Coach Accreditation Programme (Chalmers, 1997, Introduction)

Level	Target Group	Pre-Requisites	Course Duration
Getting Started in Coaching	First time coaches - parents, teachers, students & volunteers.	None	2 - 3 hr workshop
Level 1	Beginner coaches with limited experience.	16 years of age	15 hr workshop 20 hr self directed learning
Level 2	Coaches seeking more knowledge in an introductory context and/or to coach at a higher level.	CNZ Level 1 plus 1 season of coaching experience	20 hr workshop 30 hr self directed learning
Level 3	Experienced coaches working with high performance athletes.	CNZ Level 2 plus 1 season of coaching experience	55 hr workshop 100 hr self directed learning
CAD	Coaches, co-ordinators, administrators of athletes with disabilities.	None	15 hr workshop 10 hr self directed learning

Table 6.2: **CNZ Coach Accreditation Programme (Coaching New Zealand, 1999)**

Getting Started in Coaching, the introductory course that used to be known as KiwiCoach or Community Coach, covers basic introductory coaching concepts for the novice coach. It aims to provide skills and confidence to get started in coaching. It comprises six modules as listed below and totals approximately three hours of seminars.

Modules:

- The Role of the Coach
- Sport is for Everyone
- The Coach as a Communicator
- Skill Teaching and Learning
- Sport Safety
- Planning

The Level One course, aimed at the beginner coach, provides practical skills and knowledge to run a basic coaching session. It comprises nine modules as listed below and totals approximately 15 hours of facilitated workshops and 20 hours of self-directed learning.

Modules:

- The Role of the Coach
- Communication
- Growth and Development
- Mental Skills Training
- Physical Preparation
- Introduction to Skills Analysis
- Coaching a Skill

- Sport Safety
- Planning a Coaching Session

The Level Two course provides the more serious coach with information to improve their knowledge and skills and the performance of their athletes. It comprises nine modules as listed below and totals approximately 20 hours of facilitated workshops and 30 hours of self-directed learning.

Modules:

- The Art of Coaching
- Anatomy of the Athlete
- Physical Preparation
- Sport Safety
- Introduction to Biomechanics
- Skill Acquisition
- Sport Psychology
- Sports Nutrition
- Coaching a Series of Sessions

The Level Three course, as stated in the 1997 *Principles of Sports Coaching Level Two Manual*, aims to encourage elite level coaches to examine their approach to coaching and their coaching methods and emphasises sport science and its practical application. According to Sue Chalmers, "The first ever Level Three course to be offered was the pilot course which began in May 1998 and concluded in June 1999. It had never existed prior to this" (personal communication, 5 May 1999). She continued to say:

It was developed, as there was too big a jump from Level Two to the High Performance Programme so there was a need for a Level Three. The Level Three incorporates some of the seminar material from the High Performance Programme so as to meet advanced coaches' needs (S. Chalmers, personal communication, 5 May 1999).

She also said that the High Performance Programme was put in abeyance in late 1997 while CNZ developed the Level Three course. This was a result of reconsideration for the rebirth of the High Performance Programme scheduled for late 1999 after the Level Three had been adopted. In preparation for the rebirth, their plan was to review and reassess the high performance coaches' needs to identify any gaps in their coaching courses (S. Chalmers, personal communication, 5 May 1999).

This is in contradiction to the NZSFs Five Year Plan (1996-2001). It stated that, "By November 1997, the Foundation aims to have in place a four year programme for the professional development of high performance coaches and to support a minimum of two professional development opportunities a year" (New Zealand Sports Foundation, 1999a, p.15). The Foundation did not get this Programme off the ground in 1997 and nor has it since. Once again, according to Ansell, this four-year programme was supposed to be a calendar of events for high performance coaches and not a certification programme (personal communication, 23 December 1999). The NZSF offers two "invitation only" seminars or workshops for national coaches of the Sports Foundation's "priority sports" per annum, the professional development opportunities as per their Five Year Plan, which are generally on issues or trends in the coaching environment.

Contradictory information has also been gathered about the impetus to run the High Performance Programme. In 1996/7 CNZ tried to gain a commitment from the Sports Foundation to fully establish the High Performance Programme. At this time there were 90 - 100 coaches wishing to gain certification through such a Programme (Coaching New Zealand, 1997). The Sports Foundation offered one module during the 1996/97 financial year and 29 coaches participated. CNZ wanted the NZSF to offer this programme on a more permanent and regular basis but this has not come to fruition.

Also in regards to the High Performance Programme, the 1997 *Principles of Sports Coaching Level Two Manual* stated that it targeted national and international level coaches and was designed to further enhance their skills and knowledge. The New Zealand Sports Foundation was listed as the provider. However, it was also stated in the 1998 Getting Started in Coaching Manual that the High Performance Programme was provided by the NZSF in consultation with CNZ and Sport Science New Zealand. SSNZ does not seem to have much involvement in the High Performance Programme as no other reference to them can be found in annual reports or strategic plans. According to Ansell, the NZSF and SSNZ do collaborate and consult with each other on a regular basis. The NZSF also consults with Coaching New Zealand to ensure high performance coaches' ongoing professional development needs are met, according to the Foundation's Five Year Plan (1996-2001) and Ansell. John Boyd, Communications Manager for the Hillary Commission, further supported this. "The Commission contracts the Sports Foundation for high performance outcomes. Staff involved in coaching, in both organisations, regularly meet to discuss issues of commonality" (J. Boyd, personal communication, 10 November 1999). These statements indicate a contradiction in the High Performance Programme's ownership. The Sports Foundation is the sole provider of

high performance sport and therefore should be responsible for the High Performance Programme where certification may be gained.

In one breath the Programme is in abeyance, the next it is being revised, the next it will be introduced and the next the NZSF is responsible for it - all at contradictory times. There seems to be a communication breakdown between the Foundation, CNZ and the Commission. How can the Foundation initiate a High Performance Programme in 1997 while CNZ intended to put it in abeyance in the same year until late 1999 and yet ask the Foundation to start it in 1996/97? And, how can CNZ believe the High Performance Programme leads to certification while the Sports Foundation insists the 'invitation seminars' are only professional development? Clarity on these programmes is required.

The newly adopted Level Three, directed at elite level coaches, now comprises 11 modules as listed below which are taught over five weekends and totals approximately 55 hours of facilitated workshops and 100 hours of self-directed learning.

Modules:

- The Art of Coaching
- Resistance Training and Physiological Testing
- Designing Sport Specific Training Programmes
- Planning and Periodisation
- Biomechanics
- Selecting a Team
- Injuries, Illness and Environmental Stress
- Sport Psychology

- Nutrition in Sport
- Leadership and Team Management
- Drugs in Sport

The final course offered is Coaching Athletes with Disabilities (CAD). It is designed for all people involved in organising sport for athletes with disabilities and covers such material as general principles of coaching, coaching techniques and physiological considerations. It comprises 20 modules as listed below and totals approximately 15 hours of facilitated workshops and 10 hours of self-directed learning.

Modules:

Day One - General Principles

- Introduction to CNZ and Coaching Athletes with a Disability
- Understanding Disability
- Athletes with a Disability in Sport
- Opportunities
- Inclusion of People with a Disability in Sport
- Coaching Considerations for People with a Disability
- Classification and Rule Modification
- Physical Conditioning
- Safety and Medical Considerations
- Coaching Practice
- Athlete Panel

Day Two - Disability Specific Component ("XX" indicates the disability, i.e. wheelchair, intellectual, cerebral palsy)

- Athletes with "XX" and Sport
- Major Causes, Incidence Levels and Associated Conditions
- Integration
- Practical Session / Video presentation
- Coaching Strategies and Techniques
- Coaching Practice
- Classification, Rule Modification and Structure of Sport for People with "XX" Disability
- Conditioning, Safety and Medical Conditions
- Coaching Practice

In summation, the coach education programme and Coaching New Zealand's courses are all somewhat confusing. In the course of this research, much contradictory information was gathered. As well, it was difficult to collect such information. It became apparent that the Hillary Commission, Coaching New Zealand and the New Zealand Sports Foundation were not totally clear on job allocations or the status of mutually beneficial programmes. In 1997 the Hillary Commission reported, "CNZ has developed a world-class coach education system, with courses and qualifications available from the enthusiast to expert level" (The Hillary Commission, 1997, p.16). Today, this statement can still not be substantiated. It was only in June 1999 that the piloted Level Three course gained full status and was added to the pool of courses that CNZ offers. This course is now considered to be a High Performance course. It is questionable whether this course will meet the requirements of a High Performance or Level Four course. In conjunction with the Level Three course, the High Performance or Level Four course, would be defined as courses for expert level coaches. These are the courses that are badly needed and wanted by New Zealand's coaching fraternity and elite level athletes.

6.3   FINANCIAL WOES

This statement might be over simplifying the issue but the main problem with New Zealand high performance sport, more specifically coach development, education and certification, is finances - lack of finances. For the 1998/99 fiscal year, appropriations sought for the Government Vote for Sport, Fitness and Leisure totalled $4.430 million, including GST. The implementation of a high performance sport strategy from the Hillary Commission and drugs testing of sports persons from the New Zealand Sports Drug Agency was purchased by the National Government for $4.097 million equating to 92.5% of the Vote. The remaining $0.333 million (7.5% of the Vote) was spent on purchasing policy advice, administration of acts and regulations, drafting replies to correspondence and discretionary funding for groups and individuals unable to gain financial support (The Estimates of Appropriations for the Government of New Zealand for the Year Ending 30 June, 1999).

Outlined in the Government's Strategic Objectives, the services to be purchased by the Minister for Sport, Fitness and Leisure from the Hillary Commission included economic and social participation, external linkages and safer communities. These services were addressed under the strategic themes of "Strengthening New Zealand Identity" and "Build Strong Communities". Table 6.3 below represents the linkages between the output classes and the Government's strategic and other related objectives.

Output Classes (see note 2)	Related Outcomes
D1 Policy Advice (Sport, Fitness and Leisure)	Contributes to the Government's objectives in the areas of: • economic and social participation • safer communities • external linkages by providing high-quality policy advice on sport, fitness and leisure, including high-performance sport and international events such as the America's Cup.
01 Sport, Fitness and Leisure Programmes	Contributes to the Government's objectives in the areas of: • economic and social participation • external linkages by providing funds for the participation of New Zealanders in high-performance sport.
02 Drugs Testing of Sports Persons	Contributes to the Government's objectives in the area of: • safer communities by providing funds for the random testing of sports persons for the use of performance-enhancing drugs.

Table 6.3:   Links between the output classes and the Coalition Government's strategic and other related objectives (The Estimates of Appropriations for the Government of New Zealand for the Year Ending June 1999, pp.346-347)

In Output Class D1, Policy Advice, the related outcomes were said to be achieved, "by providing high-quality policy advice on sport, fitness and leisure, including high-performance sport and international events such as the America's Cup" (The Estimates of Appropriations for the Government of New Zealand for the Year Ending 30 June, 1999, p.346). It is surprising that the 2000 Sydney Summer Olympics were not singled out as the America's Cup was. The Olympics are the sporting pinnacle world-wide and for most of New Zealand's high performance athletes and coaches. This is where the majority of high performance funds are expended.

Under the Output Class O2, Drugs Testing of Sports Persons, a safer community was suggested as a related outcome by funding random drug testing of sports persons for performance-enhancing drugs. Sports persons who take performance-enhancing drugs are not a menace to New Zealand communities. They could be a menace as such, but a social menace and not a physical menace. In general, sports people are not the individuals who are affecting the safety of New Zealand communities. This is not appropriately located. This outcome could understandably sit under economic and social participation or external linkages as sports persons abusing drugs could affect both of these services.

The services being purchased do not specifically relate to high performance sport. Excellence was not mentioned and $4,097 million (92.5% of the Vote) was spent on a high performance sport strategy and drugs testing of sports persons (The Estimates of Appropriations for the Government of New Zealand for the Year Ending 30 June, 1999). The National Government of 1996-1999 did not have a sports policy and therefore did not know what actual services it needed to purchase. The New Zealand Government's overall mission statement and values for high performance sport must be clearly and concisely recognised and stated, so that the domino effect carries down through to the organisations responsible for delivering high performance sport (so that they too understand it). Management theory clearly delineates the importance of clear and concise mission and vision statements that in turn increase commitment and goal achievement.

The Hillary Commission contracts the NZSF to provide high performance programmes. Effective 28 June 1996, the NZSF adopted a new constitution and the Commission's high performance sport unit was integrated with the NZSF making them responsible for all aspects

of high performance sport. Since this time, they have been the principal provider and one-stop-shop for high performance sport. Appendix 12, the High Performance and International Sport Statement of Intent found in the Commission's 1999/2000 Funding Proposal to the New Zealand Lottery Grants Board, outlines the exact services the Hillary Commission purchased from the NZSF.

The Sports Foundation's revenue (in millions) for the 1998/99 fiscal year as per their Annual Report for the Year Ended June 1999 was as follows:

Public Sector:

Hillary Commission/Government Grant	10.8

Private Sector:

Brierley Investments Ltd.	600,000
Corporates/Trusts/Individuals/Other	2,914,962
Interest Income	179,599
NZ Olympic Committee	916,775
Total Private Sector	4,611,336
Total Income	**15,411,336**

Compared to other high performance budgets world-wide, the Sports Foundation's budget is pittance. For example, the annual budgets for the United Kingdom's Rowing Federation and Australian Swimming Incorporated are each equivalent to the Sports Foundation's annual budget which totalled 16.4 million in 1997/98 and 15.4 million in 1998/99 (New Zealand Sports Foundation, 1999a). Katie Sadleir, Manager Sports Programmes for the NZSF, openly admitted that there was not enough money targeted towards coaches and their professional

development issues (K. Sadleir, personal communication, 23 November 1999). This is also true for New Zealand high performance sport in general ("Here comes that old losing feeling", 2000).

The Sports Foundation's High Performance Sports Funding Committee's 1998/99 budget breakdown by category (in millions) was as follows:

	International Travel	3.514
	Squad/Team	1.368
	Sports Science	1.400
	Academy	3.700
	Personal Grants	1.502
	Sponsorships	1.501
	Special Projects	0.572
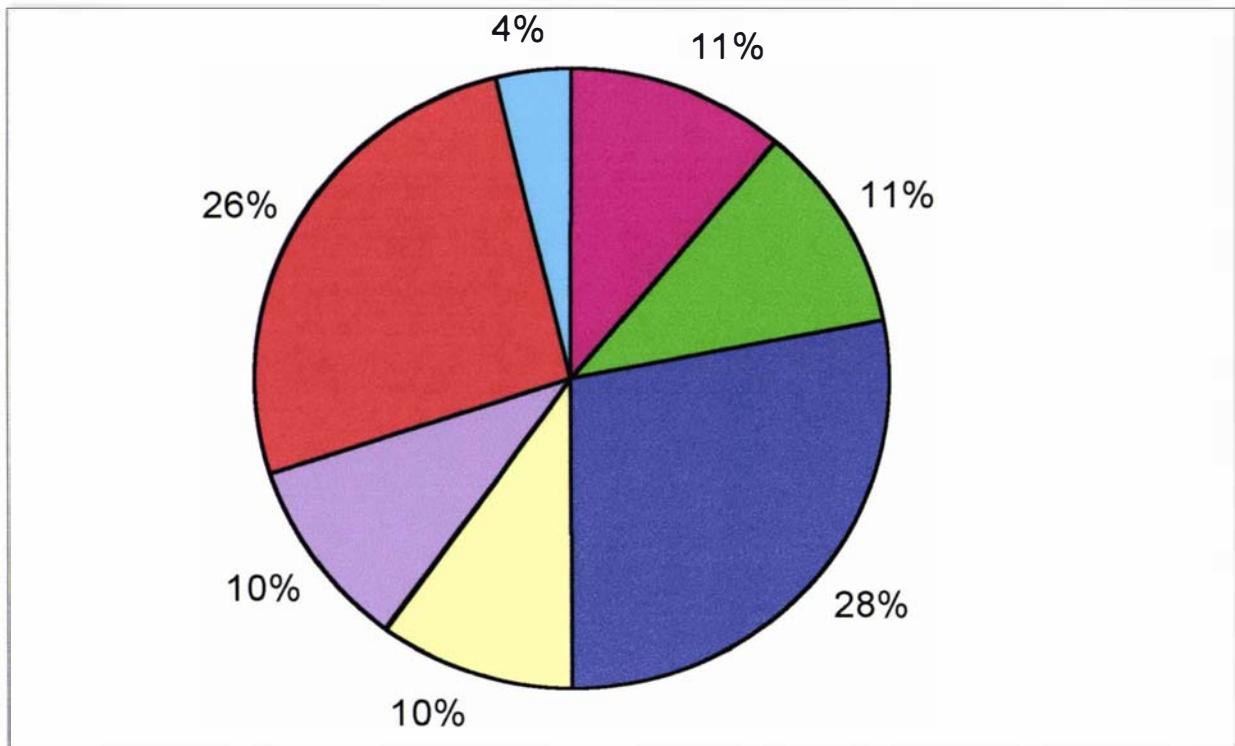
Figure 6.1: 1998/99 NZSF Funding by Category (in millions) (New Zealand Sports Foundation, 1999a, p.23)

Coach development, education and certification are supposedly incorporated into the International Travel, Sports Science, Academy and Personal Grants category areas. An exact figure of what was spent on actual coach development, education and certification cannot be provided due to bulk funding but a maximum of 10% of the Sports Foundation's budget is dedicated to coaching (I. Ansell, personal communication, 23 December 1999; K. Sadleir, personal communication, 23 November 1999).

Under International Travel it is difficult to derive exactly what benefits coaches received from this category. The purpose of this category was to support athletes' and coaches' travel to international competition to ensure that they enjoy quality competition in preparation for their major events. This does not really assist a coach with development, education and certification opportunities. The coach is getting more coaching experience but not professional development per se.

The Sports Science budget has a category titled "Integration of Sport Science into Coaching". The description of this category does not even mention the words coach or coaching. The connection between sport science and coaching is negligible in this instance, therefore the coach, once again, is apparently not benefiting professionally. Ansell disagreed with this claim and stated that coaches' scientific knowledge was being improved through this programme (personal communication, 23 December 1999). My claim is based on the available information in the New Zealand Sports Foundation Annual Report for the Year Ended June 1999.

The Academies supported by the NZSF, in conjunction with the NSOs of the 17 sports involved, provide a structured coaching and development programme and have the task of producing top talent (New Zealand Sports Foundation, 1997). These "Academies" are given a variety of titles in the 1997 and the 1998 NZSF Annual Reports. Such titles include High Performance Coaching Academies, Athlete Academies, National Sports Coaching Academies or Academy Sports. The titles "High Performance Coaching Academies" or "National Sports Coaching Academies" are misnomers as it is not the coaches who are necessarily receiving the development. Coaches provide their coaching services and thereby gain experience but most do not receive structured professional development or have an opportunity to gain certification. Only some sports, such as athletics and hockey who have a partnership with Massey University's National Sport Organisation Sport Coaching Practicum, offer opportunities for their coaches to gain certification.

The Academy system underwent a review in late 1998/early 1999 and tenders were called in late October 1999 for a new Academy structure, which will now be known as High Performance Sports Centres (HPSCs). Tenders closed early January 2000 and submissions

were reviewed in February with notification of successful tenders being announced in April 2000. The HPSCs will be fully operational in July 2000. The benefits to coaches are unknown at this time but the tenders called for submissions on "High Performance Coach Support Units". These Units were requested to comprise technical resources and equipment and flexible personalised professional development. One of the expressed outcomes of the High Performance Coaching Units was stated as, "To up-skill and motivate top coaches, to bring them together and to share with them some of the latest training techniques from around the world" (New Zealand Sports Foundation, 1999b, p.A14).

The Personal Grant description is very vague. A Personal Grant may be allocated to elite level coaches but only to those who have athletes who also receive Personal Grants. The coaches' Personal Grant is not specifically for coach development, education or certification. Many use the funds to assist with overseas travel, to cover other sport related expenditures or to cover employment related costs in their absence.

Of these four categories little funding seems to be dedicated to coach development, education or certification. Once again the NZSF cannot identify an exact amount spent on these specific areas. They do make the statement, "The promotion and enhancement of the professionalism and availability of quality coaching is crucial to New Zealand's sporting success" (New Zealand Sports Foundation, 1996a, p.14). They seem to have good intentions but their activity is not highly visible. They are implementing some good initiatives such as the Internet chat line SportsTalk where coaches can 'chat' and 'discuss' issues and concerns facing them and/or their athletes. It is easy to put these intentions into black and white without setting them into action. I am sure they are not meant to be down graded or ignored. Less than optimal funding and staffing have been stated as reasons for this avoidance. Ansell

stated, "We are trying to do as much as possible with our limited resources" (personal communication, 23 December 1999).

The NZSFs mission statement is, "To assist athletes to succeed at international level and by so doing bring credit to themselves, their sport and New Zealand" (New Zealand Sports Foundation, 1996b, p.2). Even though their 1996 Constitution re-write brought with it the responsibility for high performance sport, the NZSF does not view their role as a provider of coach development, education and certification for high performance coaches. But, as the NZSF is the principal provider of high performance sport programmes, they should be. If they are committed to sporting excellence by assisting athletes to succeed in high performance sport and if they believe that professionalism and availability of quality coaching are crucial to New Zealand's sporting success, then they must actively pursue an elite level coach development and education programme. At this point they are only concentrating on half the equation. Coaches require coaching just as athletes require coaching.

The Hillary Commission believes that their partnership with the NZSF is coach development focused. "Coaching is a primary focus of this partnership with the Sports Foundation, because great results are seldom achieved without great coaches" (The Hillary Commission, 1998, p.17). The Hillary Commission made the following claim.

> Coaching is important at every level and, at the highest level, good coaching makes all the difference. The Hillary Commission invested nearly $12 million in high-performance sport in 1997/98 - we are committed to helping New Zealand coaches give their athletes the best possible preparation. The Commission has a contract with the New Zealand Sports

Foundation to help sports produce champions. The majority of these funds are dedicated to

the coaches who make it happen (The Hillary Commission, 1998, p.2).

If the NZSF does not believe that they have a responsibility for educating and certifying elite

coaches, then there is a definite problem with their Hillary Commission partnership. The

above quote states that the majority of funds granted to the NZSF are dedicated to coaches,

however the Sports Foundation cannot provide an exact financial figure for the funds spent

on coaches. Then again, nor can the Hillary Commission.

In 1997/98 the Commission provided $5.7 million to NSOs. Their 1997/98 annual report

claimed that, "most of this money was used by sports to boost their coaching programmes"

(The Hillary Commission, 1998, p.16). Unfortunately, this claim is unsubstantiated. Under

the Official Information Act questions regarding this were submitted to the Hillary

Commission. Three questions asked were:

1. What portion of the Hillary Commission's budget is allocated to coach education annually?

2. What is this portion in dollar figures?

3. Does the Hillary Commission allocate funding to the National Sport Organisations (NSOs)

    for coach-specific education programmes?

John Boyd, Communications Manager, provided the following reply to these questions.

This cannot easily be assessed. National governing bodies have received funding in bulk

since 1995/96 to achieve sport development outcomes, which include coaching targets.

Regional sport trusts also receive funding in bulk to cover a number of initiatives in sport

development including the provision of coaching courses. The Commission does not

require organisations to identify how much they spend on the various areas for which they are contracted, but expects them to meet their contractual targets. (personal communication, 10 November 1999).

They are unable to provide exact dollar figures spent on coaching development and/or courses. Claims such as the one quoted from page 16 of The Hillary Commission Today (1998) on page 235 of this thesis cannot be made without sustenance to back them up.

6.4 SUMMARY AND REVIEW

Although coaching or formal coaching has been defined thoroughly in the sport literature, it was necessary to gain the research participants' understanding of what coaching represented to them. Their definition or perception did not vary greatly from those of reviewed sport authors.

Coach education was then examined to gain an understanding of the current status and content of the courses on offer. This provided backing for the research participants' perceptions of why self-coaching is seemingly popular amongst elite New Zealand athletes. Then the funding aspect of high performance sport, including coach education and certification, was considered.

In summary, the following is a point to ponder. Jon Ackland, a highly respected exercise physiologist, training consultant and author, presented a valid point on the funding of high performance sport, mainly that of coaches and athletes (personal communication, 9 April 1999). For the years ending 30 June 1998 and 30 June 1999, $11.8 and $10.8 million respectively was spent on New Zealand's high performance athletes and coaches via money

allocated to the New Zealand Sports Foundation by the Hillary Commission. In 1997/98 $7.5 million was allocated to high performance athletes but only $4.3 million was spent on High Performance Coaching Academies. Firstly, as discussed, these Academies do not seem to offer the coach education and professional development opportunities that various annual reports and planning documents insinuate they do. Secondly, and more importantly, an athlete may represent New Zealand for an average of five years whereas a coach may be involved for 20 years. It would make sense to dedicate more funding to the development, education and certification of elite coaches who may contribute to high performance sport for such a long period of time. Certification is not the ultimate solution but these are budget and programme areas that the Sports Foundation and the Commission should consider improving.

RESULTS IN CONTEXT: THE SELF-COACHING CONCEPT

The goal of personal excellence is to do everything in your power to fulfil your own goals and dreams, raise the level and consistency of your performance, experience a greater sense of enjoyment and personal satisfaction in your pursuits, and enhance the quality of your life (Orlick, 1996, p.15).

7.1   OVERVIEW

This chapter will build on the theme of self-coaching and again further extend the results presented in Chapter Five. The main themes of defining self-coaching, the reasons why athletes self-coach, characteristics/qualities of self-coached athletes, strategies to enhance self-coaching and steps for self-coaching will be discussed.

7.2   DEFINITION OF SELF-COACHING

As there was no research-based definition of self-coaching when this research commenced, the respondents were asked to provide their definition, description or perception of what self-coaching was to them. From a wide variety of responses received and analysed via document analysis and concept mapping, the proposed definition became apparent.

My working definition of self-coaching, which was not relayed to the research participants, was, "a proactive concept where the athlete facilitated their self-development of performance-enhancing and achievement-oriented activities either in the absence of a coach, mentor, technical advisor or observer or with one of these having input only when, or if, required". From it and the researched responses, the definition of self-coaching evolved to be, "the

ownership and practice of self-development and organisational activities oriented towards enhancing performance and goal achievement". I had initially perceived that a coach, mentor, technical advisor or observer may be called on when, or if, required and that this would be incorporated in the definition. This perception was supported by responses from the research participants. It was the athlete's responsibility to make the decision when, or if, to call on outside assistance. It is extremely difficult and unrealistic for an athlete to coach themselves successfully without any outside assistance at all. One questionnaire respondent exhorted this same sentiment.

> *At an elite level (i.e. Olympics, World Championship or Commonwealth Games) I think it would be very hard (or perhaps even impossible in some cases) to perform well without the assistance at some stage of a coach that you can trust and rely on (UD).*

Another 1996 Olympian talked about his relationship with his coach whom he talked to quite frequently but saw only once every three months. This athlete developed his own training programmes and "bounced them off" his coach for feedback. Even though there was a person he called "coach", he still considered himself self-coached.

> *I have a lot of respect for him and he realises, we both realise, that it is not the perfect situation, but it's like, you know, that's just the way it is. I see myself as being self-coached; I do, with a coach (DC).*

This same athlete completed the usual roles of a coach himself but called on others for assistance when he felt it was required.

> *In reality no one person, I realise that no one person knows everything I need to know, so like for me, I put the onus on myself to go out and find out everything I need to know from*

other people. I don't expect my coach to go and find out things I need to know. So, it's kind of like you know, I have my performance, I break it down into well I need this element, this element, this element; so it's kind of like ticking all the boxes and so I just draw on everybody that I can (DC).

Another 1996 Olympian, whose coach has never personally seen her compete, also supported the need for external assistance. They often talked on the phone when she had quandaries where she felt she needed outside advice to help resolve them.

The more brains you have the better. I actually surround myself with a group of people who I take what I want to take from and they can have back what I don't want (TG).

These athletes made the decision when and who to call on for outside assistance, advice or support. This outside advice was considered to be integral to the ownership and practice of self-coaching but was not required to be part of the definition. I do believe that there must be an addendum, though, stating that it is highly recommended.

Many people - athletes, coaches, administrators and academic colleagues - had varying ideas of what they thought self-coaching was and how it should be defined. Some felt that it meant the athlete did everything on their own without any outside assistance or influence what-so-ever, while others felt that the athlete did everything on their own but with minimal outside assistance or influence. Still others felt that it meant that the athlete took some control over their training and competition programme either in the absence of their coach or in conjunction with their coach. And yet others felt a coach or outsider developed a training programme and the athlete implemented it without any assistance from that person who supplied the programme.

From this thesis-research it is clear that, when self-coaching, it is the athlete who is responsible for development and implementation of the programme that leads to their performance goals or outcomes. It is also up to the athlete to determine when outside assistance should be sought - whether it is of a technical nature or the use of sport science mechanisms or feedback mechanisms.

One could get pedantic about the actual amount of time the athlete had guidance from a coach or coached themselves in the absence of a coach. The temporal definition of self-coaching has not been specifically determined in this research. That is, exactly how long does an athlete have to spend training and competing in the absence of a coach to be considered self-coached? The definition of self-coaching by its very nature contains a temporal aspect and may vary from athlete to athlete.

After being invited to define self-coaching, respondents were asked, "Do you self-coach?" Just over 90% of the interviewees and questionnaire respondents reported that they either always or sometimes self-coached. While contextually each respondent had their personal understanding of what self-coaching was to them, the responses to the question asking for a definition or description of self-coaching were similar from both groups of respondents and were reiterated in the concept mapping exercise. The outcome closely related to my understanding of what self-coaching was.

If the NZSF, CNZ or the HC were to complete their own study to determine the number of New Zealand elite athletes who were self-coaching, they could use this definition as the determinant. The responses would then be based on the same understanding of what self-coaching was. It would be interesting for such a study to be conducted as I believe the results

would be (surprisingly to the NZSF, CNZ and the HC) in favour of self-coaching or sometimes self-coaching. They would no doubt be surprising to the NZOC and the various NSOs as well.

Jon Ackland relayed that 98% of his clients were self-coached and considers himself an "on-paper coach" (personal communication, 9 April 1999). Mark Sutherland, a Sport Performance Coach who over an eight-year period coached medal winners at two Summer Olympics, one Winter Olympics and various world championships, said that 100% of his clients were self-coached (personal communication, 28 April 1999). An elite multi-sport athlete confirmed these figures. It was felt that over 95% of this athlete's multi-sport and triathlete friends were self-coached. This in itself confirms that an extremely high percentage of high performance athletes are involved, to some extent, in self-coaching. Reasons or circumstances provided by the 1996 Summer Olympians and past Olympic medal winners why elite athletes self-coach will be discussed in the next section.

7.3 REASONS TO SELF-COACH

There are a variety of reasons, as presented in Chapter Five, why elite athletes self-coach. New Zealand Olympians gave reasons why they or other New Zealand elite athletes chose to self-coach or found themselves in a self-coaching situation. Some chose to self-coach while others did not. Others self-coached by default as they felt they had no other option.

The most highly rated reasons, including lack of elite level coaches, lack of sport-specific coaches and lack of certified coaches in the home vicinity of the athlete, have been addressed in Chapter Six. Other reasons such as incompatibility with a coach, financial considerations,

acceptance of the challenge, inconvenience of traditional coaching and arrogance or self-confidence, are reality in the minds of New Zealand Olympians.

These reasons need to be realised and addressed by such organisations as the HC, NZSF, CNZ, NZOC, NSOs and RSTs. Those responsible for high performance sport, the Hillary Commission and the New Zealand Sports Foundation especially, must recognise the number of elite athletes who are self-coaching and must understand why this situation is occurring. They can then put plans in place to help overcome and assist with this dilemma.

The reasons elite athletes self-coach are potentially valid for developing New Zealand athletes and even athletes world-wide. I believe more reasons would be uncovered if other levels of New Zealand athletes, such as the developing athletes, were surveyed.

New Zealand athletes, like those world-wide, participate in their chosen sport to achieve to their maximum potential. They deal with such situations as the lack of elite level coaches, no access to elite coaches where they live, time and financial restrictions, incompatibility with a coach and the other reasons presented, through self-coaching. As noted, this situation may not be by choice, but by default. One avenue that may benefit those athletes who self-coach is to be conscious of the characteristics/qualities that an athlete should possess to enhance their self-coaching experiences.

7.4 CHARACTERISTICS/QUALITIES OF ATHLETES WHO SELF-COACH

Characteristics/qualities are generally not 'things' that an athlete can develop as most of them are inherent. Awareness of these characteristics/qualities though may help the athlete identify whether self-coaching is appropriate for them and then provide areas to focus on and improve

in. The most common reasons given by the respondents (as summarised quantitatively in the questionnaire and interviews and then confirmed in the concept mapping exercise) will be discussed in this section.

Figure 7.1 below indicates the components of self-coaching, that is, the characteristics/ qualities required of self-coached athletes.
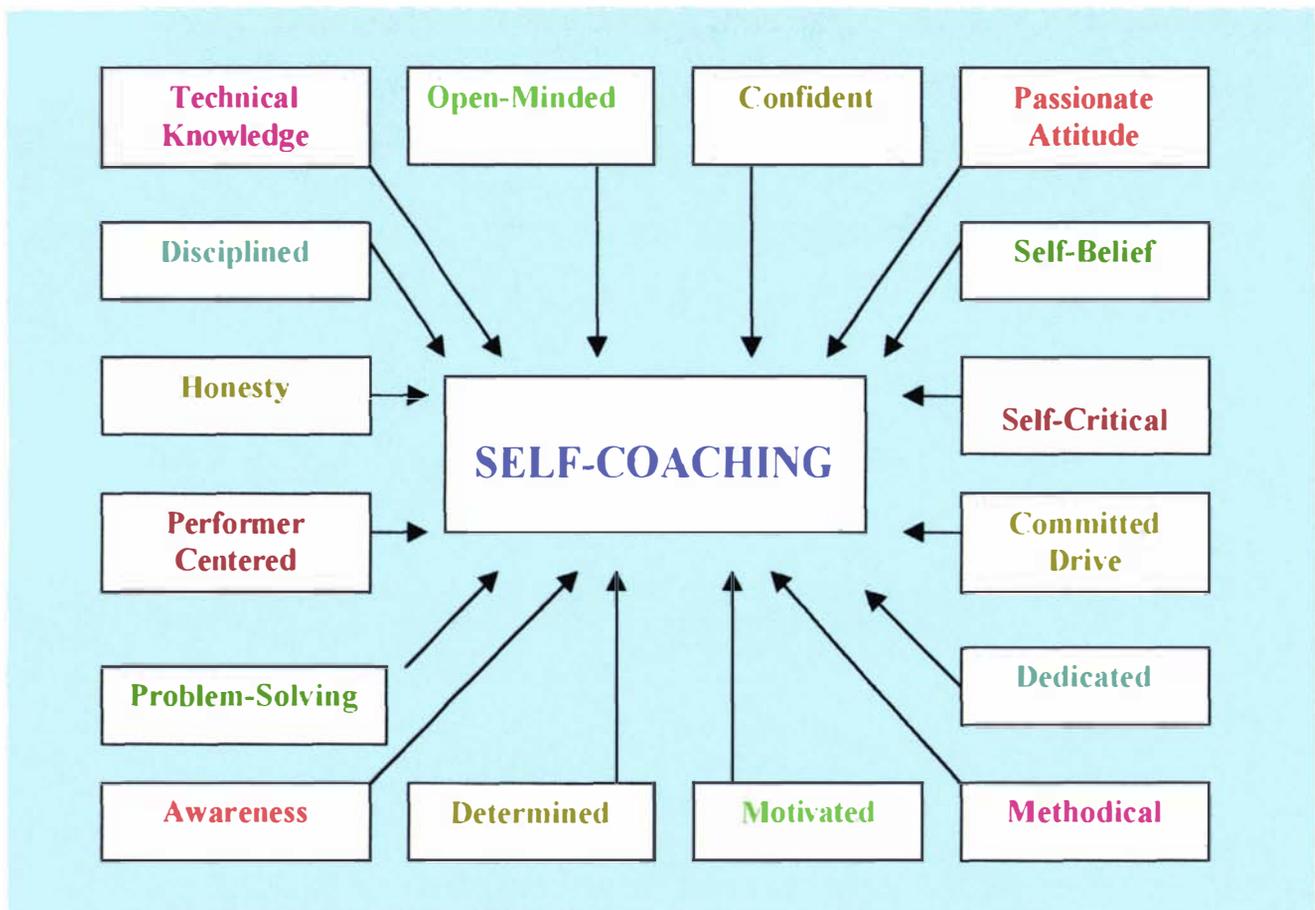
Figure 7.1: Basic Components of Self-Coaching

The question could be raised, "Are the characteristics/qualities required by elite athletes the same for those who are formally coached and those who are self-coached?" New Zealander Murray Deaker, who has coached, played, analysed and commentated on sport, concluded that many athletes have similar physical and mental attributes but that champions have special characteristics/qualities. Deaker summarised these characteristics/qualities as

commitment, diligence, attitude, passion, fanaticism, dedication, skill perfection and guts (Deaker, 1997).

Rod Macqueen, coach of the Australian Rugby Union team from 1998 to present, preached some of these characteristics/qualities to his players. He believed that developing the players off the field would make them more effective and adaptable to on the field situations providing them the opportunity to be more responsible and empowered in determining their performance destinies (Jones, 1998). He exhorted terms such as "passionate", "interchangeable", "self-reliance", "adaptability", "self-sufficiency", "accountability" and "self-management" - all terms reported in this research.

It is perhaps reasonable to say that it is difficult to distinguish between the characteristics/qualities required of self-coached athletes to those of formally coached athletes. I agree that all athletes must possess these characteristics/qualities but the difference between a formally coached and a self-coached athlete is the degree to which these characteristics/qualities are emphasised. It is also reasonable to conclude that these components are equally present in both groups to varying degrees but there are additional requirements for the success of a self-coached athlete. Self-coached athletes must be more aware and stronger in many of these attributes. Robert de Castella, an Australian marathoner and Olympic medallist succinctly stated, "I think you can do it without a coach, but it's a lot harder to succeed. You have to be a very strong individual to do it" (Sandrock, 1996, pp.385-386).

The most important distinction between the self-coached athlete and the coached athlete is the "do it yourself" or "doing it on your own" aspect of self-coaching with limited outside

influence. What distinguishes a self-coached athlete from a formally coached athlete is the fact that they do "it" on their own. They are the ones who accept the ownership and responsibility for their goal achievement and performance outcomes. They have to be more finely tuned in regards to the special characteristics/qualities required.

Being aware of these characteristics/qualities can help an athlete to self-coach. For instance, discipline was agreed by all the research participants to be the key characteristic/quality of a self-coached athlete. If it is recognised that discipline is a highly desirable trait, then the athlete can focus on this area if it is lacking. The athlete can review the daily entries in their training diary and reflect on their training experiences and can then decide if discipline is lacking. It could then be an area to focus and work on.

A training diary was considered an important tool for a self-coached athlete to employ. Self-coached athletes assume the role of a coach and currently coach themselves without any strategies to guide their endeavour. Some avenues to assist them will now be discussed.

7.5 STRATEGIES FOR SELF-COACHING

The questionnaire respondents and interviewees recommended several strategies to assist elite athletes who self-coach. Combined with the few strategies suggested in the literature a comprehensive selection emerged (see Chapter Five, pps.135 and 137) that is highly recommended and potentially beneficial to enhance what elite athletes do to aid their self-coaching.

Three changes were made to the potential list provided in the questionnaire (see Appendix 1, p.322). The questionnaire respondents put forth a strategy of observation and

experimentation. The interviewees altered a listed strategy on the questionnaire (long-term planning programmes) to one more specific (setting a realistic training programme). The only new strategy the interviewees added was that of testing via sport science tools.

The questionnaire respondents (87%) also frequently reported self-analysis, discussions with other athletes and talking with more experienced athletes as strategies. The interviewees made a minor variation to these responses - to talk to other athletes to find out what they were doing and to take what works best for you, giving it a similarly positive rating (94%). Talking with athletes who have been there was also promoted as a valuable learning opportunity. A multi-medal winner spoke of how he and his team-mate learned from other world class athletes.

> *There are two priorities in yacht racing: one was learning how to sail a boat, the second was making a boat go faster. Our answer to that was always ensuring that we were surrounded by the fastest people that we could find - the fastest people on the planet. We cultivated that when we went offshore. We cultivated friendships with top Europeans and top Americans - we were fraternising with them. We became personal with the guys who were good at it and we'd learn from them. What to buy, what gear to have and how to work it and how to acquire it - that was the key. I suppose you could say in a sense, the performances we got were a rub off from competing with these other guys. If you go out there and sail for three weeks with the world champion, if he goes twice as fast as you do, you can bloody soon work out the techniques to stay with him. And that is the way it was all the way through (DU).*

The research participants suggested talking to each other, other international elite athletes or other international coaches. A suggestion that was not put forth was for athletes (or coaches for that matter) to talk to successful New Zealand coaches for example, who have coached in

multiple Olympic Games, World Championships or other world class events. I spoke to one such coach, Mark Sutherland, who said after his eight-year involvement in two Summer and one Winter Olympic Games, he had received minimal contact seeking his well-seasoned advice or experience from the high performance sport delivery agents. It is a pity that coaches who 'have been there' - who have the knowledge and experience - are not asked to contribute their insight and wisdom to the ongoing development of New Zealand athletes, coaches and sport itself (M. Sutherland, personal communication, 28 April 1999). Many would be flattered and all too happy to do so, if only they were asked. This is such a simple solution to help educate and assist New Zealand's developing and elite athletes and coaches. Ansell, in support of the NZSF, contradicted Sutherland and stated that the advice of some past coaches is sought and some are invited to contribute to various seminars and planning workshops (personal communication, 23 December 1999).

Not all strategies are going to suit all athletes as seen in the various response frequencies given in both the questionnaire and the interviews (see Chapter Five, pp.135 and 137). While any one of these strategies is better than none at all, a combined selection is probably more effective. The items are not mutually exclusive and, depending on the athlete, the stage of the athlete's career, the time and place and the environment or situation, a different mix may be selected at any one time. Combining these strategies with structured guidelines can only greatly enhance elite athletes' self-coaching success rate.

These strategies are reflected in the researched definition of self-coaching. By implementing strategies for which the athlete alone is accountable, performance may be enhanced. It must be stressed that a self-coached athlete must call on an outside observer, coach, mentor or advisor when they need to talk to someone, feel they need outside advice or gain feedback.

Strategies such as those presented in Chapter Five can be presented in the form of videos, seminars, workbooks, manuals or books for athletes to familiarise themselves with. They can also be integrated into the CNZ Coach Education Programme as suggested in Chapter Eight. The NZSF, CNZ, the HC and individual NSOs or RSTs could promote the publications and/or efforts of developing such resources. This could be integrated into the strategy to overcome or aid the self-coaching dilemma. Also, what is required are defined steps or guidelines that athletes could follow to enhance their self-coaching preparation and overall experiences which will be discussed next.

7.6   STEPS TO SELF-COACH

This thesis-research has shown that many New Zealand Olympic athletes are assuming the role of a coach and coaching themselves without any steps to guide this endeavour. Steps or guidelines are important for a self-coached athlete so as to be able to implement a structured plan to prepare for self-coaching. A high percentage of New Zealand Olympians, either with a coach or without, reported that they did not follow a logical sequenced progressive plan. This was a surprising outcome as I initially believed that elite level athletes and their coaches would understand the need for well-thought out and structured, short and long-term plans.

When communicating their planning endeavours many Olympians reported that they could identify their final goal but could not visualise the steps to get them from their current point to where they would like to be. A systematic 'business-like' process would no doubt be beneficial and was recommended by a few of the interview respondents. This 'process' could be explained using the analogy of a road map. The scenic route, the direct motorway route or

the unplanned 'tiki tour'[8] route would all arrive at the same point. Depending on which route is taken, the end destination may not be the intended one, the arrival may be too late or too much energy may be expended in getting there. A structured plan identifying where the athlete is now, where the athlete wants to go and how the athlete is going to get there would be much more effective - especially if the idea was to get to the final destination (goal) in an expedient and efficient manner.

A multi-medallist from two Olympics agreed that training programmes should be more formalised but was a little tentative about structured programmes.

> *It scares me that it (programme development) has become so regimented now. I think it's a tool you need, and that a lot of that can be done mentally. We get very much into the programme of setting big goals and little goals and all the correct things that you have to do, and putting them down on paper, but sometimes it becomes so formalised that its scary....For some athletes it definitely needs to be done. Other athletes would do it naturally. Occasionally you have just got to get out there and thrash yourself (QN).*

A 1996 Olympian and professed 'self-coacher' who religiously planned all training opportunities and supported the formalised, regimented process said:

> *The last two or three years of my career I was coaching myself. I would actually sit down and write a plan so that I had, what the goals were, how they were spaced, whether it was practical to do them, whether I had to maybe treat one as a minor goal, you know, just going through that whole goal setting process. And then I would write out how I wanted my training to be structured around those events. It was always a method of working backwards, I was always taught to work backwards...then work out what the actual*

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[8] A New Zealand colloquialism for a meandering trip.

training sessions were going to entail...once I'd done all that I would actually get my coach, who really was an advisor at that stage, just to come and have a look at it and he'd sort of, 9 times out of 10, there would be nothing that he would change (BI).

Another 1996 Olympian supportive of self-coaching said her programme planning was very much part of her training and her life. Everything she did or thought of was aimed at her Olympic dream and she trained 24 hours a day in search of that dream.

I've got a big wall chart that has every month, every regatta I am doing, every training, what days I can have off, what days I can do this, doctors' appointments, how many hours I am going to train, right up to the end of 2000. For analysis and revision I have a diary, and also in that programme I have, "three weeks before, choose mast and sail that I will compete with" in such and such regatta (TG).

The idea of accountability and reviewing the plan at year-end was little mentioned in the questionnaire and interview responses. This is definitely a requirement for self-coaching. In response to a question asking the interviewees to explain their training regime, many of them included an evaluation or year-end review of their training but yet did not often propose it as a step for self-coaching. One 1996 Olympian commented on the depth of his training review and analysis.

It's like an annual report. We made this much money, I shot these scores, and I think to myself that's a really good score, lately my scores have been really high. I write down all the positive things first, and then I wasn't happy with how my concentration was, or I wasn't doing a certain thing right, and I'll work on it (BM).

Another 1996 Olympian supported this approach.

> *I do a lot of my training by heart rate...I'll monitor my sessions, I'll analyse how the session went, I'll make comparisons all the time, so I'm very, I'm just analytical I guess, by nature that's the way I work. And I'll take a very methodical approach....It's kinda over the top in comparison to what most people would do...I set an achievable goal, what's my objective for the season...at the end of the year sort of treat it like I'm in a business....I've got to be accountable to people...did I achieve my goals... (DC).*

Yet another 1996 Olympian spoke of his growing attitude towards and the realisation of the need for a set plan and monitoring of his progress.

> *What I'm finding, especially over the last few months...had a slump in form and I'm trying to sort it out, and pushing hard....So I'm sort of seeing that for me to achieve what I need to achieve...I've got to get more and more regimented about the process I put in place. While a lot of it up to date has probably been a bit more of what one might say loose, as far as no set procedure, I'm seeing that I'm getting into a procedure where I'm making myself actually train a lot more. Not only at range training; if I can't get there then what I do, every moment I have spare, I'm thinking about how I'm going to approach this next training session. What I'm going to do, what to achieve, writing those things down, becoming I suppose very sort of, a lot more organised about it. So when I go out to the range this weekend, I'll be going there with a particular purpose to be working on a particular aspect, and the aspect that I believe is holding me back....And as I shoot, at the end of each round, I'll be reflecting a little bit on why did that work or why didn't that work. Even if you have had a bad day training, you've got to be able to walk away with some positive aspect (CX).*

This athlete has incorporated, as have the previous two athletes, accountability, revision and monitoring into the planning process.

The questionnaire and interview responses delivered similar but different steps for self-coaching. Either of them would be beneficial but I believe one set of guidelines should result from this research. Responses from both groups of respondents are presented below.

The questionnaire respondents arranged the following nine steps in this order of occurrence for self-coaching:

- identify a vision
- set goals
- identify personal philosophy
- develop a plan of action
- develop self-awareness and self-knowledge
- assessment of your performance
- observe and self-reflect
- make changes/corrections
- reassess your performance.

The interviewees presented the following steps for self-coaching:

- strategic intent/goal setting
- write a strategic plan
- write a tactical plan
- experimental analysis
- identify feedback mechanisms
- monitor and review
- control mechanisms.

While both sets of steps are logical and favourable, I think that they could be altered slightly to achieve a more suitable and understandable guide. I feel the steps should be as follows:

- strategic intent/goal setting
- situational/experimental analysis
- develop a plan of action: strategic and tactical
- identify feedback mechanisms for performance assessment
- monitor and review
- identify control mechanisms for performance reassessment.

The reasons for these alterations are as follows:

- I would like to include 'identify personal philosophy' and 'develop self-awareness and self-knowledge' within the list of steps (although they were not highly considered by the research respondents). I think that these steps should be integrated into the first step, that is, strategic intent/goal setting, as I believe they are important to understand prior to setting targets relating to both an athlete's sporting and life mission and goals.

- Situational/experimental analysis should occur prior to developing a plan of action. An athlete must understand their strengths and weaknesses before a plan can be identified to cure all ills and set a path for success.

- By combining 'develop a plan of action', 'write a strategic plan' and 'write a tactical plan' I believe that athletes will better understand the purpose of such a step. I think that the step 'develop a plan of action' is too vague and the steps 'write a strategic plan' and 'write a tactical plan' too intricate and perhaps too business-like for athletes to fully comprehend.

- I extended 'identify feedback mechanisms' to read 'identify feedback mechanisms for performance assessment' and 'identify control mechanisms' to read 'identify control mechanisms for performance reassessment'. These initial phrases were somewhat vague, but by specifying what the feedback and control mechanisms were to be used for, I believe the athlete will understand their implications more clearly.

Additional explanatory material will be supplied for each step and is presented as a plan of action in Chapter Eight.

7.7   SUMMARY AND REVIEW

This thesis-research anticipated that a large percentage of elite athletes would self-coach. The research questions were designed in order to develop a set of recommendations that a self-coached athlete could adopt to improve their self-coaching experiences. The research results were also aimed at the organisations responsible for managing high performance sport and who are therefore responsible for an athlete's elite development, performance preparation and self-coaching experiences.

The realisation by these organisations that many elite athletes are in fact self-coaching is the first step towards arriving at a solution to the problem. The problem-solving questions that have been asked (surely) are: why are elite athletes self-coaching?; what can be done to enhance their self-coaching experiences and therefore their performance outcomes?; and what can be done to minimise the number of elite athletes who self-coach?

But how are these problems to be overcome? Unfortunately, finances seem to be a cure for all problems in sport but as discussed in Chapter Six, spending on New Zealand sport is particularly limited. Lochore noted that the Hillary Commission's $37 million budget equated to just two days of the total health budget and only 21 hours of the social welfare budget ("Sport poised on knife edge", 1999). There is just not an excess of funds for New Zealand sport. A more concerted effort to gain sponsorship, government funding or to increase programme revenue for allocation towards coach development and education and self-coaching development could be easily suggested, but it is well known that these ideas are not

readily achievable or realistic in New Zealand. Other avenues have to be considered to assist New Zealand athletes that self-coach. The self-coaching characteristics/qualities, strategies and steps discussed in this chapter are a stride in the right direction. A plan of action of how these themes can be integrated to benefit New Zealand athletes and coaches will be discussed in the next and final chapter.

CHAPTER EIGHT

THE PLAN

The truth is the individual has the absolute responsibility to perform. When he [sic] knows that
and accepts it totally he [sic] will be all that he [sic] can be (Morrison, 1997, p.C4).

8.1   OVERVIEW

The results were presented in Chapter Five and discussed in Chapters Six and Seven. Chapter
Eight a plan of action and the overall synopsis of the research are presented.

The high percentage of New Zealand Olympians who reported that they self-coached is
staggering. These results justify the need for a plan of action to address this situation. This
action could be in the form of self-coaching guidelines such as those resulting from this
thesis-research or the introduction of high performance coach education courses to increase
the number of certified elite and/or sport-specific coaches. The findings also suggest that the
New Zealand sporting organisations responsible for high performance sport, the stakeholders,
should 'look outside the box' to fulfil the athletes' requirements for international sporting
success. This chapter will formulate a management-oriented plan of action for some of these
ideas.

8.2   PLAN OF ACTION

8.2.1   Coach Education

In order to meet the needs of our high performance athletes coach education has to start at the
ground up. Such programmes and courses offered by the Hillary Commission such as
"Coaches Count" and "Getting Started in Coaching" are good introductions. By increasing
the base number of people coaching, more New Zealanders may wish to continue their

coaching career through to certification. A solid base would provide a larger pool of coaches to progress to the elite level of coaching. Lochore, Hillary Commission Chairman, supported this stating that there were three crucial sport issues which the Commission must tackle: young people, coaching and volunteers ("Sport poised on knife edge", 1999).

> A shortage of coaches is a concern at all levels....We need more, and better, coaches. Top coaches get top performances from their charges. How many potential world champions are not going up the grades because their coaches can't take them there? We will never criticise coaches, but we have to ensure those with talent stay in the game and obtain the skills they need. One solution is to train young people as coaches from an early age and widen the pool. Increasing the number and improving the quality of coaches will be a major job -- and perhaps not an easy one ("Sport poised on knife edge", 1999, p.B2).

Lochore has summarised the situation well, as has Jeni Pearce, an acknowledged authority in sports nutrition who has advised some of New Zealand's most successful athletes and sporting teams. She emphasised four key components to a successful sporting career: diet, fitness, mental attitude and coaching. "I've seen some brilliant athletes who didn't do as well as they should have because of a lack of proper coaching. They simply didn't get the necessary fine-tuning" (Pearce, cited in Ryan, 1999, p.34).

The need for more trained and certified coaches is recognised. Now a plan of action must be put in place. Figure 8.1 below is a pictorial representation of a Coach Development Pyramid.
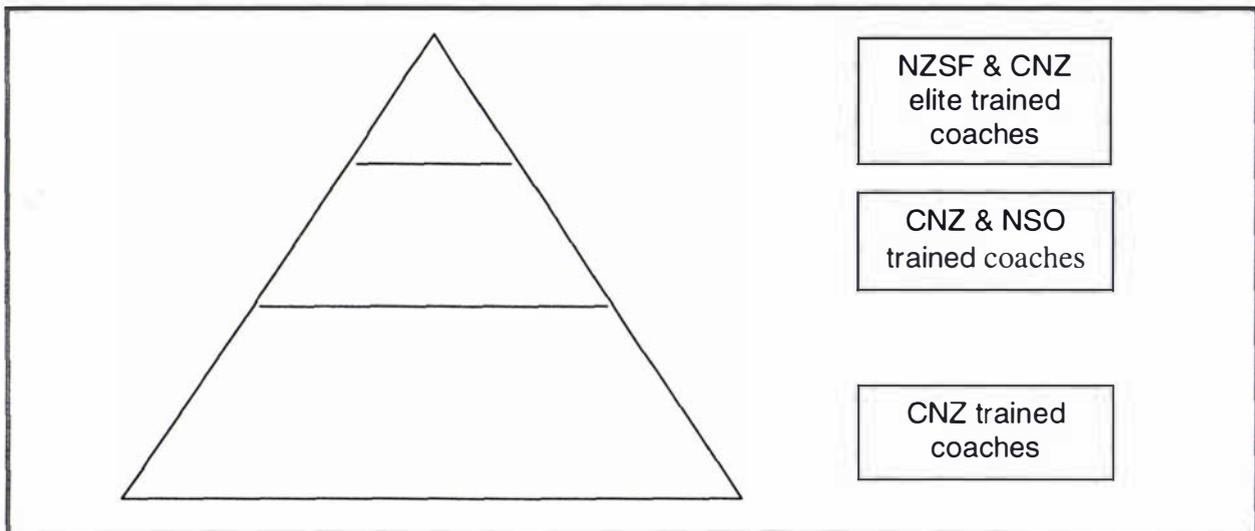
Figure 8.1: Coach Development Pyramid

At the base of the Pyramid, coaches are introduced and certified by coach education programmes such as those offered by CNZ. Coaches then advance up the Pyramid gaining sport-specific coaching certification through their NSOs. The NSOs need the support of CNZ to develop these mutually beneficial coaching courses so sport-specific coaches can be trained.

In 1996/97 CNZ developed a partnership with the NSOs and termed it "Consultancy". The aim of the programme was to develop "high quality generic and sport specific coach education plans" (Coaching New Zealand, 1997, p.11). There were 23 NSOs using the CNZ Level One and Level Two coaching courses as compulsory components of their individual coach education programmes. This was a step in the right direction to assist in overcoming the complaints of those Olympic athletes who were either interviewed and/or completed a questionnaire, who said there was a lack of certified and sport-specific trained coaches. Such programmes allow these sport-specific coaches to receive proper coach education at the developing through to elite levels. Unfortunately, no subsequent reference to this programme

can be found. According to Kereyn Smith, General Manager for the Hillary Commission, the "Consultancy" programme is still in effect, but in a revised format. CNZ offers National Coach Director workshops on a quarterly basis where ideas are shared and issues addressed (personal communication, 21 January 2000).

Following successful completion of CNZ Level One and Two courses, coaches with talent can participate in the High Performance Programme progressing to the Pyramid peak. The NZSF, in conjunction with CNZ, must ensure that this Programme is re-introduced so that coaches can gain expert coaching certification and occupy the peak of the Pyramid. (An issue that must be clarified is the role of the NZSF and of CNZ in educating and certifying elite level coaches. Only one of these organisations should be accountable for this and currently the lines of responsibility are blurred.) If this Programme is not developed, then high performance athletes will continue to suffer. How are they to excel if their coaches, mentors or technical advisors are not trained to the required level? Elite level athletes need elite level coaches. If more elite coaches are not trained then the percentage of both elite and developing athletcs who self-coach will continue to increase. The situation of athletes coaching themselves will take over, in some cases by necessity and in other cases by choice.

8.2.2 Self-Coaching Cycle

This thesis-research has noted that 42% of 1996 Summer Olympians considered themselves self-coached, 51% sometimes self-coached and 7% did not self-coach. 47% of the Olympic medal winners considered themselves self-coached, 47% sometimes self-coached and 6% did not self-coach. Based on these findings, the Self-Coaching Cycle (Figure 8.2 below) may offer solutions to benefit the number of athletes who self-coach by reducing their lack of self-coaching knowledge and teaching self-coaching skills.

This Cycle was introduced by McConnell (1995) as the McConnell Coaching Cycle[9] and further developed and refined during the course of this research. McConnell originally created the Cycle for coach development. In this regard he stated, "(the cycle) sets the coach in five stages of development...each will provide situations for the coach to flourish as a leader, with coach behaviour based upon a clear philosophy and vision" (p.1). He also noted that the cycle might be beneficial for athlete development. The revised Self-Coaching Cycle indicates potential stages in an athlete's development whereby self-coaching techniques can be learned and implemented. Coaches can teach athletes to master self-coaching concepts relevant to each stage of their developmental programme within the Cycle. The Self-Coaching Cycle could be integrated into CNZs Coach Education courses.

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[9] This diagram was McConnell's version of the Coaching Cycle (1995, p.1).

(VI) SELF-COACHING (I)

(V) PROFESSIONAL   INFORMAL (II)

(IV) FORMAL ← ASSIGNED (III)
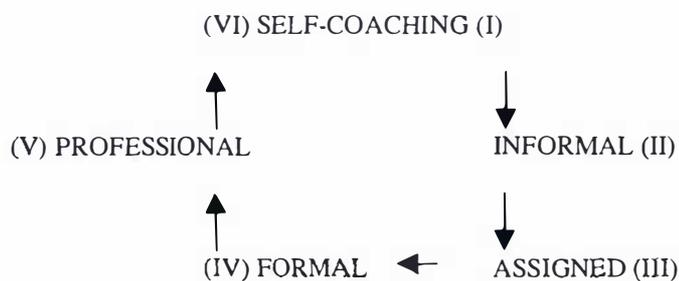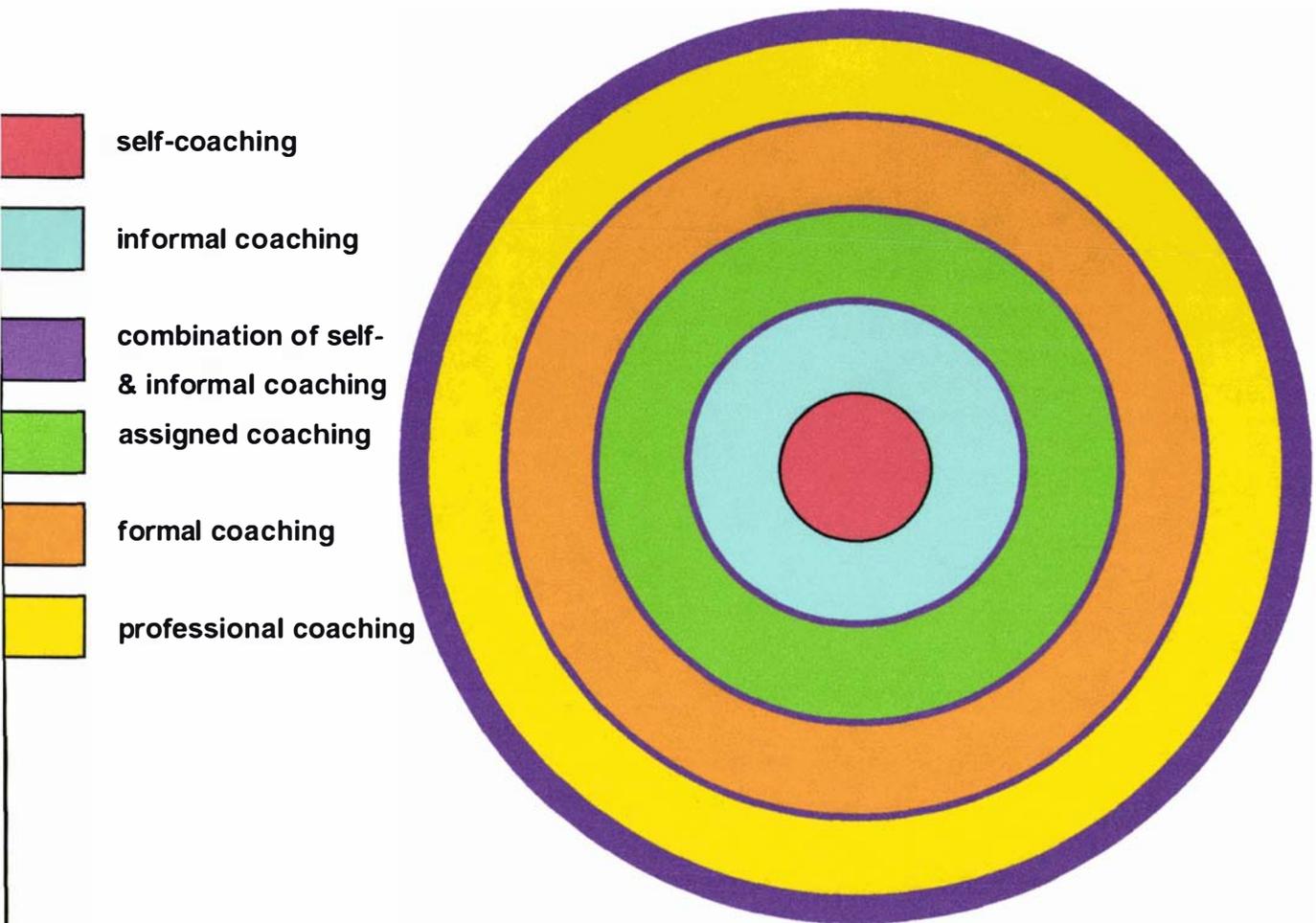
Figure 8.2: Self-Coaching Cycle

The Cycle commences and ends with the self-coaching stage. At the beginning of the Cycle a young, inexperienced child tries to imitate the performance of a sport skill seen performed by parents, siblings or on television. They 'give it a go', playing and learning on their own.

The child moves to the informal coaching stage where the child is given hints, basic instructions or advice on the acquisition or execution of a skill. For example, when the child kicks a soccer ball, tips on how to kick the ball correctly may be provided by a parent or sibling. Lochore pointed out that the Commission would like to see parents being their

children's first coaches ("Sport poised on a knife edge", 1999), providing informal coaching. The parent plays this role during this stage of the Cycle.

In the assigned coaching stage, a coach with little or no knowledge of the particular sport is asked to coach a team and provide whatever assistance they can to the young players. The coach is assigned to the particular sport team in such environments as primary school, Cubs, Brownies or a Kiwisport team and probably is a parent of one of the participants. As stated in the Australian Sports Commission *Activate Sport for Life* magazine, a parent usually coaches this level, reluctantly agreeing to take on the role with the proviso, "but I've never coached a team before" ("Who's going to coach the under-12's?", 1999, p.20). Their role is mainly to manage and organise the team and assist in skill development to the best of their ability without possessing any hard core coaching-specific abilities.

In the formal coaching stage, an individual who has sport-specific knowledge and hopefully sport coaching certifications is requested to become the formal coach of a club or secondary school team. By the end of the formal coaching stage the athlete has been provided with a model or vision of what the skill is to look like, what problems may be inherent in the performance of that skill and a habit of monitoring the expected standard of performance is developed. They begin to self-reflect and self-analyse correcting and improving on their skill execution.

When Whitaker took over the coaching of the English field hockey team, he vowed to involve the players in recommending their own ideas for improvement when they were not meeting set performance standards. "I would coach in a different way, that would try to involve the guys who were on the field in the coaching, so that instead of telling them how to

play I would ask them what was going on" (Whitaker, cited in Durcan and Oates, 1994, p.101). Whitaker's coaching methods, supported by Greenwood (1986), involved asking the players to think about the specific area where a problem in skill execution was occurring. Questions were then posed to raise the players' awareness of what happened when they performed that skill. Every time a question was asked that the player could answer, willingness was built up to try to solve the problem and reinforcement was given to ensure that the point would not be forgotten. Asking questions facilitated the players' ability to learn and understand the correct technical execution of the skill. This is what should occur in the formal coaching stage.

In the professional coaching stage, the coach has relevant qualifications as an able coach within a particular sport. The players are at an advanced skill level such as provincial or state representatives. They are learning to correct their own skill execution and think of tactical options available to them on the field of play. After all, generally the coach is unable to make decisions for them or help them during competition.

Ideally, the Cycle is then complete and the athletes flow back to the self-coaching stage where they are then able to apply learned self-coaching skills to their own sport situation and become responsible for their own performance, development, progression and outcomes, calling upon specialist input as needed. The definition of self-coaching stressed that this specialist input was crucial and that it was the responsibility of the athlete to determine when, or if, it was required.

The Self-Coaching Cycle, by implication, includes self-coaching at each stage. When an athlete progresses through a stage they may consciously or unconsciously reflect on the skills

learned in that stage. They then practice the skills learned in their own time, implementing self-coaching skills.

In support of this Cycle, research completed by Bloom (1985) found that the initial involvement of individuals in sport came about from their friends being involved in the sport and it being seen as the thing to do. These individuals learned a substantial amount about the sport before having a formal coach. Their early instruction was informal, with the learning being in the form of lessons and the practice as child's play. This relates to the initial self-coaching stage and the informal coaching stage of the Cycle.

The athletes then took a more serious approach to their development with encouragement from their parents, their successes and the observation of others participating in their chosen sport. The child's play was turning into serious work, which can be associated with the formal stage.

Finally, the athletes realised their potential and set out to achieve in their sport.

> As the athletes master the separate parts of their sport, they have to learn to put them together into a whole that is different from the parts...[E]ventually the athletes have to do this work by themselves and for themselves (Bloom, 1985, p.436).

This relates to the professional coaching stage leading back into the self-coaching stage.

Also providing supporting evidence, Holmes' 1980 study determined the characteristics of a good coach and those of an ideal coach. Analysis of the data by age indicated that the perceptions of instruction differed between the younger players and the more experienced

players. The younger players accepted being told what to do and expected to be instructed while the more experienced players preferred to discuss tactics and technical corrections. "He [sic] tended to know when he [sic] was doing things that were not quite working out, and preferred to work it out for himself [sic]" (Holmes, 1980, p.25). This fits with the intent of the Self-Coaching Cycle in that athletes in the informal, assigned and the formal stage receive instruction and from then on are expected to question and make corrections for themselves. Holmes' research supports the idea that experienced elite level athletes may prefer to self-coach.

If athletes are taught how to teach or coach themselves and to understand how they learn, then they may develop more independently and practice self-coaching. Providing athletes with the opportunity to learn to self-coach is very important in New Zealand sport. This concept should be embodied into every coach's philosophy and, consequently, into their athletes' practice and development plans. Even in situations where an athlete has a coach or only intermittent access to a coach, athlete empowerment and self-responsibility should be encouraged. The resulting potential growth may carry over not only to excellence in their athletic endeavours but to all aspects of their life.

To initiate this, the Self-Coaching Cycle and the overall concept of self-coaching should be integrated into each level of CNZs Coach Education courses. By teaching coaches about the Cycle and the elements of self-coaching, they are then able to include self-coaching techniques in their coaching repertoire and teach self-coaching skills to developing through to elite level athletes. An example of how the CNZ courses could be modified to include gradual stages of self-coaching (modifications in bold) is included in Appendix 13.

In the New Zealand context, only half of the job is done if the focus is solely on the coaches. Strategic development must include a focus on the athletes too. Modification of CNZs Coach Education courses is one option to be considered. These modifications would enhance the coaches' and athletes' ability to practice and implement self-coaching guidelines in their quest for athletic success. Steps to aid this quest will now be discussed.

8.3   THE GUIDING STEPS

The self-coaching steps resulting from this research could be of benefit to a self-coached athlete or even a coached athlete. The six recommended steps are clearly delineated and easily followed as explained below. They offer a regimented and structured business-type plan to aid in preparation for self-coaching. As noted in Chapter Five in Section 5.3.5.3 these steps are not dissimilar to management based planning guidelines. The six steps to be discussed are:

- strategic intent/goal setting
- situational/experimental analysis
- develop a plan of action: strategic and tactical
- identify feedback mechanisms for performance assessment
- monitor and review
- identify control mechanisms for performance reassessment.

The first step, strategic intent/goal setting can be broken down to two sections. In the first part, strategic intent, like a mission statement, provides direction, focus and consistency for future actions. It should reveal the athlete's personal visions or purpose and meaning of the intended direction to be taken. This should help the athlete define their philosophy and the values they place on their efforts. An example of a strategic intent for a triathlete may be "to

commit 100% effort to be the best I can be, focusing on fitness and technique without overlooking my personal responsibilities".

The second part, goal setting, involves the development of clear and concise goals and defines exactly what is to be gained from the experience. When an athlete sets goals for themselves, rather than accepting goals set or initiated by others, more ownership is taken and they are more likely to accomplish them. The goals should be written down with timelines attached to each one. Examples of goals and timelines to achieve the strategic intent example in the first part of this step include:

- to maintain an average heart rate of 166 beats per minute to achieve my anaerobic threshold: record daily progress by use of a heart rate monitor and check heart rate averages weekly by reviewing training diary
- to miss only 10% of my overall training programme: record all missed sessions and review training diary monthly
- to work once every two weeks on technique with a specialist in one of the three triathlon disciplines: record specialist recommendations and my progress for consideration in future workouts and review training diary every two weeks for monitoring of improvements
- to spend time with my partner: two-week day evenings and Saturday and Sunday after morning training.

The goal writing process helps the athlete to be more accountable and is critical to success. "A dream is just a dream until it is written down; once it is written down, it becomes a goal" (Moortgat, 1996, "Goal Setting"). A commitment to realising the goals and a method for measuring the progress of each goal by reviewing the set target dates must also be established. By having a written plan, goals may be visualised, progress evaluated and procrastination, fear and stagnation reduced. These benefits are inherent in all the steps.

Step one also includes the development of self-awareness and self-knowledge, which was ranked as step four in the questionnaire responses. Self-awareness and self-knowledge help the athlete to understand themselves and to ultimately identify their strengths and weaknesses. This is supported by Covey (1989) who said, "Self-awareness enables us to stand apart and examine even the way we 'see' ourselves---our self-paradigm, the most fundamental paradigm of effectiveness" (Covey, 1989, p.67). He continued to say:

> Through our human endowments of *self-awareness* and *conscience*, we become conscious of areas of weakness, areas for improvement, areas of talent that could be developed, areas that need to be changed or eliminated from our lives. Then, as we recognize and use our *imagination* and *independent will* to act on that awareness---making promises, setting goals, and being true to them---we build the strength of character, the being, that makes possible every other positive thing in our lives (p.92).

Recognition of self-awareness and self-knowledge prepares the athlete for step two. Step two is the completion of a situational/experimental analysis. The athlete must be able to realistically analyse their strengths and weaknesses within their environment to enable them to decide how they must proceed in planning their self-coaching path. This will assist them in understanding where they currently are and identifying positive steps to promote the changes necessary to get them to where they want to go. Examples of strengths, weaknesses and action steps for the triathlete scenario include:

Strengths:

high VO2 max: maintain through endurance training during weeks one to six

highly motivated: keep focused and inspired by using training partners

swimming skills: continue to increase training to swim at race pace

Weaknesses:

    bike technique: read cycling magazines, join a triathlon club, gain advice from specialists and other elite riders

    ability to overtrain: use a heart rate monitor, listen to my body, maintain contact with physiologist

    speed: incorporate speed work into programme from weeks six to nine

Anne Sargeant, an Australian international netball player, coach and administrator, supported the fact that individuals, teams and organisations must analyse their strengths and weaknesses to determine their current status or situation (Sportswomen Step Forward, 1991). That is the purpose of this step.

A plan of action, both strategic and tactical, the third step, must be developed to help the athlete achieve their overall mission and goals. This entails listing all possible alternative courses of action and behaviours that may be implemented to achieve their goals. Specific action plans will be developed from this list. The action plan must match the strategic intent (vision and philosophy) of the athlete as determined in step one. Examples of alternative courses of action for this case include:

- join a triathlon club to gain specialist advice and have multiple training partners
- keep a thorough training diary
- read magazines, books, use the Internet, and talk to other athletes
- work with a physiologist
- have weekly massages
- seek expert nutritional advice
- gain expert advice on technique
- participate in a variety of triathlons in preparation for the main event

- buy a heart rate monitor
- buy a wind trainer.

An action plan selecting the most effective alternatives can be developed from a list such as this.

The next step, step four, is to identify feedback mechanisms for performance assessment, which involves seeking assistance, feedback or support from an outside observer, self-observation, asking questions and flexibility. The importance of outside feedback has already been stressed in Chapters Five and Seven. Observation, step seven in the questionnaire responses, is important for two reasons. Firstly, the athlete is observed and provided with feedback to assist them in moving forward. Secondly, observation is important for imitating and improving skills an athlete wishes to learn or practice and for studying the behaviour of the skills to be mastered. Virtually all learning phenomena resulting from direct experience occurs by observing other people's behaviour. "The capacity to learn by observation enables people to acquire large, integrated patterns of behaviour without having to form them gradually by tedious trial and error" (Bandura, 1977, p.12).

Self-observation can be considered similar to observation as the athlete observes their own behaviour, which provides them feedback. Through heightened awareness and deliberate attention, the athlete monitors their thoughts, feelings, physiological reactions and behaviours with increased sensitivity (Meichenbaum, 1977) and learns from these experiences.

The athlete then must monitor and review the skill or learned behaviour, step five, once it is performed. They assess it and take corrective action. One such action is reflective questioning. Reflective questioning provides answers to why, what and how an action has

been performed and identifies methods to improve its execution. Such questions could include:

- why did I swim to the left instead of straight ahead?
- what did my arm pull or leg kick do to send me in that direction?
- how can I alter my arm pull or leg kick to swim straight?

Answering these questions makes the athlete more aware of what they are doing allowing them to problem-solve and make decisions to correct their actions. Progress and skills must be continually monitored, assessed, reassessed and reviewed for improvement to be continuous.

The final step, to identify control mechanisms for performance reassessment, includes such devices as evaluation, critical analysis, feedback, reflection, monitoring, accountability, review and reassessment. The control mechanisms must include evaluation and measurement of the level of goal achievement for those goals set by the athlete in step one. It is important that the goals are continually revisited to ensure that they are still realistic and attainable. The last three steps become cyclical in nature as they must be continually re-examined for progress to be realised.

These six steps represent and are summarised in the following quote, "The Vision that you glorify in your mind, the Ideal that you enthrone in your heart - this you will build your life by, this you will become" (Allen, 1987, p.56). At the elite level of sport, it is imperative that athletes understand the management processes of planning and organisation and the effect these processes may have on their sporting career, their sporting performance outcome and their personal life.

In relation to programme plan development, Sutherland strongly believes that a training programme must suit the athlete's lifestyle - something he calls "functional reality" (M. Sutherland, personal communication, 18 October 1997). When he works with an athlete he provides a list of questions to be answered before the training programme is developed. He wants to find out what and who is important in their lives, what they do outside of sport, if they work, if they study, etcetera. He basically wants to know what makes them tick. He ensures the programme does not incorporate aspects that the athlete despises or aspects that do not fit their personal vision or lifestyle. If a programme based on this philosophy is developed then the athlete may stay committed and driven to achieve. The programmes are developed in conjunction with the athlete so that they suit the athlete's needs and lifestyle - their "functional reality". All too often training programmes are literally pulled off a shelf and posted to an elite level athlete expecting them to take ownership and follow them. These programmes are not tailored or individualised to that specific athlete's needs. It is not realistic to expect ownership and commitment to follow. It is necessary that the athlete understand the above steps in order to develop a plan for their pursuit of excellence, whether they be formally coached or self-coached. Their plan must meet their "functional reality".

8.4 THE RESEARCH IMPLICATIONS

The research questions posed in Chapter One were answered in the self-administered questionnaires received from 45 of the 97 strong 1996 Summer Olympic Games team, the interviews with 23 past Olympic medal winners and the 13 1996 Olympians and the concept mapping exercise with 35 of the 36 interviewees and discussed in Chapters Five to Seven.

What has emerged clearly is that athletes should not be encouraged to pursue self-coaching unless the following points are adhered to:

- they seek outside assistance of some sort when, or if, required
- they are conscious of the identified characteristics/qualities required to enhance self-coaching
- they follow the identified steps to prepare for and assist them when self-coaching
- they recognise the identified strategies and adopt those most useful to them.

Developing athletes should be discouraged from self-coaching as they do not yet understand the technical or tactical aspects of their sport, do not have highly developed skill technique and have not gained a sound understanding of their sport or themselves.

At the developing level, via the Self-Coaching Cycle, a coach can prepare and teach athletes to self-coach at a later stage of their career if they so choose. In addition, the coach can give athletes responsibilities such as preparation of equipment for training, contribution to training programme development and evaluation of individual training sessions. The coach can also employ reflective questioning, giving athletes increased opportunity to think for themselves and learn about and understand their sport. The Self-Coaching Cycle indicates the stages through which a developing athlete must pass to help them acquire self-coaching skills. The coach can learn the self-coaching process through CNZ Coach Education courses and integrate it into their coaching curriculum.

The results of this thesis-research also have implications for the Hillary Commission, the New Zealand Sports Foundation and Coaching New Zealand. The Sports Foundation is contracted by the Hillary Commission to deliver high performance sport. They receive a large proportion of their funding for high performance sport from the Commission who is partially funded by the Government Vote. The Foundation is responsible to fund the high performance needs of the NSOs and individual athletes who meet pre-determined criteria to receive

financial aid and the other services they offer. The Sports Foundation will not fund elite athletes unless they meet their set performance criteria. The Sports Foundation is, or at least should be, accountable for their expenditures on elite sport and elite athletes. If the Foundation is not supporting the elite athletes to the best of their ability by providing the 'tools' the athletes need to perform, then they are not offering the optimal service to the athletes. The Olympians reported that there was a lack of coaches to meet their needs and in the locations in which they lived therefore many of them self-coached. In an era when there is not an abundance of funding best practice principles must be implemented. These best practice principles include offering avenues to fill the voids that currently exist in New Zealand sport as these Olympians reported. These specific voids were discussed in Chapters Five to Seven. They may be remedied by implementing the self-coaching steps and strategies recommended in this research. Also self-coaching experiences may be improved by the Foundation offering the self-coached and even the coached athlete opportunities to develop their self-coaching knowledge through seminars or workshops, videos, workbooks and other printed material.

Application of these self-coaching guidelines also has social implications. It is often said that if our elite sports people are successful then we are a more patriotic and productive nation. It is also said that we are a healthier and happier culture with a high 'feel good factor'. If this is true then the Hillary Commission who receives much of their funding from the public purse has an obligation to all New Zealanders to offer the best possible opportunities to our elite athletes so they may achieve their sporting goals. These athletes are role models and mentors for not only the youth and developing athletes of the country but for the entire population. Reiterating Witi Ihimaera's quote regarding the importance of sport to New Zealanders as stated in Chapter One, "Our sports achievers are important to us....Sport has been our past...it

will also be our future" (New Zealand Sports Foundation, 1997, p.13). It is the Hillary Commission's, the New Zealand Sports Foundation's and Coaching New Zealand's responsibility to review and consider self-coaching options such as those presented in this thesis.

8.5 FUTURE RESEARCH

As this topic has not been researched or written about academically prior to this thesis-inquiry, this study opens the door for much further research. I have identified a definition of formal coaching, a definition of self-coaching, the reasons why athletes may self-coach, the characteristics/qualities that a self-coached athlete should possess, steps to guide a self-coached athlete and strategies to enhance a self-coaching experience. Further research topics are listed as follows:

- individual sport-specific case studies to determine for which sports self-coaching is most appropriate and which sports would like to implement self-coaching processes

- studies on team, individual and dyadic athletes to determine which athletes benefit most from self-coaching and which athletes would like to implement self-coaching processes

- replicate this study using Paralympic athletes as the research population

- longitudinal research to create a basis for understanding which educational interventions are best suited for individuals with elite level abilities and potential in sport

- coaches' thoughts and perceptions of the self-coaching process

- the suitability of self-coaching for male or female athletes

- the application of the Hersey and Blanchard Situational Leadership Model to be affective for self-coaching

- research into the application of self-coaching to the 'game sense approach' presented by den Duyn (1998) as a means of using games "to develop tactical / strategic thinking, as well as skill development" (p.6)

- further extend the Self-Coaching Cycle to integrate more specific self-coaching techniques and tools for coaches and athletes

- study the incidence of self-coaching of rural versus urban athletes

- study the practice of self-coaching in other countries

- review sport, leisure and fitness policy development and its implications in regards to funding and strategic vision of those New Zealand athletes who self-coach

- review areas within CNZ such as funding priorities, monitoring of courses, numbers of males versus females being certified and to which levels, numbers of active coaches and satisfaction reports of CNZs clients - the coaches themselves

- review areas within the NZSF such as funding priorities, high performance policy, high performance programming and future initiatives.

The 'New Zealand need' for self-coaching guidelines has been explained and justified throughout this thesis-research. Self-coaching is a very realistic situation in New Zealand and further research would be of great benefit for athletes who self-coach.

8.6   SUMMARY AND REVIEW

Self-coaching is not the optimum avenue for elite athletes, but when elite athletes are self-coaching (and this research confirms that they frequently are) then procedures and programmes should be put in place to help them overcome the obstacles they face.

'Armchair commentators' may say that a coached athlete will be more successful than a non-coached or a self-coached athlete or that there is no such thing as a self-coached athlete. These statements may have a degree of truth but if the stakeholders responsible for high performance sport are not providing qualified and/or experienced coaches and optimal training regimes for athletes, then there will be self-coached athletes. They perhaps have no other choice than to turn to self-coaching. One of two things should happen. Either, coaches are certified at the elite level and systems put in place so that athletes do not have to self-coach or else self-coaching guidelines are developed and taught to elite athletes, coached or self-coached, to enhance their sporting experiences. Self-coaching guidelines would help to empower athletes and make them more responsible, involved and committed to achieving success in their own personal development and performance outcomes.

Self-coaching involves the willingness to accept responsibility for behaviour and outcomes, establishing a personal direction, committing to move in that direction and possessing the ability to do what it takes to achieve set goals. Self-coaching helps athletes to understand the necessity for defining personal values, setting progressively higher goals and defining a plan for their attainment. It is a conscious, deliberate and continuous journey, which assists in realising individual potential where athletes take charge of their own destiny.

It is time to look beyond approaches that have been previously tried concerning high performance sport. The number of elite athletes who are self-coaching without any rigorous research-based guidelines may be a contributing factor to the (perceived) decrease in elite sport achievements. The questions to be asked are "What are the sports organisations that manage, prepare, fund and evaluate New Zealand's elite athletes doing to help them?" and "What can they do?" Action plans recommended in this chapter may be a solution, or at least

a step in the right direction to assist athletes who are self-coaching and increase the performance of athletes - coached or self-coached.

Self-coaching is predominant and a 'here and now' feature of the New Zealand sporting landscape. The New Zealand Sports Foundation, in their role as the guardians of high performance sport, must take action to aid these self-coached athletes. As the respondents shared their experiences during the interviews and in the questionnaires, political and social awareness and the implications of these were brought to my attention. At times their frustrations and disappointments with their national sport organisation, their coach or the New Zealand sports system were shared. Some of their achievements and joys were also shared. As I built relationships with these athletes I realised how privileged I was to have them share these thoughts and feelings. I felt an obligation and sense of responsibility to ensure that the research outcomes could benefit them and developing athletes, prospective Olympians and the stakeholders responsible for high performance sport. Insight and recommendations for the stakeholders – the athletes themselves, the Hillary Commission, the New Zealand Sports Foundation, Coaching New Zealand and practitioners such as coaches and academics – needed to be presented. The stakeholders needed to be made aware of this realistic and not necessarily obvious situation that New Zealand's Olympic athletes faced.

This study on self-coaching has provided qualitative data generating a grounding of information on self-coaching. It provides a starting point for research where climate, gender, ethnicity, economic resources, or access to facilities place other international athletes in a similar position to New Zealand athletes. Future research on the topic will expand the knowledge base and benefits for developing and elite athletes world-wide.

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APPENDICES

APPENDIX 1

QUESTIONNAIRE ON SELF-COACHING OF ELITE ATHLETES

MASSEY UNIVERSITY
DEPARTMENT OF MANAGEMENT AND INTERNATIONAL BUSINESS

Dear New Zealand Olympian,

My name is Trish Bradbury and I am a Sport Management and Coaching Lecturer and Doctoral student at Massey University, Albany Campus. I am currently completing a Doctorate of Philosophy researching **self-coaching of elite athletes**. My research explores how elite athletes may benefit from techniques which assist them to coach themselves.

The New Zealand Olympic and Commonwealth Games Association, Coaching New Zealand, the New Zealand Sports Foundation, and the Hillary Commission all support this research and are interested in the results. Your specific responses will be used only for the purposes of the research and will be aggregated with all others. It will not be possible for you to be identified in any reports or publications prepared from the research.

Please complete the attached questionnaire which has been designed to assess your views on the process of self-coaching, **confidentially and anonymously**. It is assumed that by filling in the questionnaire you consent to take part in the research. It will take approximately 20 minutes to complete. It is your choice whether or not you answer all questions contained in the questionnaire. Please complete and return it in the reply paid envelope provided, by **Wednesday, 3 December 1997**.

If you have any queries regarding this questionnaire or the research please do not hesitate to

contact me at the address or the numbers provided below.

Trish Bradbury
Massey University
Private Bag 102 904   Telephone: 09-441-8128
North Shore Mail Centre   Facsimile: 09-441-8109
Auckland   Email: P.E.Bradbury@massey.ac.nz

If you have any other concerns please contact my supervisor, Dr. Marilyn Waring, on 09-443-9665 (telephone) or on 09-443-9767 (fax).

If you would like a summary of the results please complete the following panel. Detach this page and return in a separate envelope if you would like your responses to be anonymous.

Name: _____
Address: _____
               _____
               _____

(1)

- **Filling in this questionnaire implies consent to participation in this research.**
- **Please tick the applicable boxes or write in the space provided.**
- **Please feel free to write on the back of the page if you require more writing space.**
- **Thank you.**

	For coding use only
PART A Demographic Information	
If you wish to remain anonymous do not complete the name and address questions.	(4)

1. **Name :** _____   Male ☐   Female ☐

2. **Address :** _____

_____

_____

3. **Telephone :**(home) _____   (work) _____

(5)

4. a) **What is your career/occupation :**

_____

4. b) **Do you work on a full-time or part-time basis?**

Full-time ☐   Part-time ☐

5. **Olympic Sport:** _____

6. **Do you train on a full or part-time basis?**   Full-time ☐   Part-time ☐

7. a) **On average how many: (Please complete both boxes).**

☐ Hours per week do you train?   ☐ Months per year do you train?

7. b) **On average how many:**

☐ Months per year do you compete?

(14)

8. **Number of years you have played your Olympic sport? (Please complete both boxes).**

☐ Socially   ☐ Competitively

9. How did you become interested in playing your Olympic sport? (18)

_____

_____

_____

10. a) Did your family mostly encourage/discourage your participation in your Olympic sport? (22)

Encourage ☐   Discourage ◼☐

10.b) How? _____

_____

10.c) Why? _____

_____

PART B   Self-Coaching

11. How would you describe the term formal coaching? (27)

_____

_____

_____

12. How would you describe the term self-coaching?

_____

_____

_____

13. Personal characteristics required to self-coach. (Tick all those which <u>you</u> think are applicable). (33)

☐ Confidence   ☐ Responsibility

☐ Discipline   ☐ Motivation

☐ Honest   ☐ Commitment

☐ Competitive spirit   ☐ Awareness

☐ Positive attitude   ☐ Self-esteem

☐ Resilience   ☐ Control

☐ Concentration   ☐ Ownership

☐ Responsiveness   ☐ Self-belief

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☑ Emotional strength   ☑ Intuition

☑ Dedication   ☑ Self-criticism

☐ Adaptability   ☐ Technical knowledge

☐ Determination   ☐ Imagination

☑ Self-sufficiency   ☐ Performer centred

● Flexibility   ☑ Decision-making

Other:_____   _____

(49)

14. Strategies used to enhance self-coaching. (Tick all those which you think are applicable).

☑ Training diary   ☐ Competition diary
☑ Video analysis   ☐ Self-awareness
☑ Peer feedback   ☐ Mentor feedback
☐ Self-analysis   ☐ Self-reflection
☐ Self-management training   ☐ Long term planning programmes
☐ Self-coaching workshops   ☐ Specialist assistance
☐ Talk to more experienced athletes ☐ View other elite athletes in same
☑ Learn from mistakes   discipline
☑ Modelling other athletes   ☐ Discussions with other athletes
☐ Books, journals, magazines ☐ Other _____
☑ Use of mirrors   _____
☑ Training partner

(63)

15. a) Do you consider yourself to be self-coached?

Yes ☑   No ☐   Sometimes ☑

15. b) If yes, what do you do to self-coach?

_____

_____

_____

_____

(86)

15. c) On average how often do you self-coach?

Hours per week ☐   Months per year ☐

16. In what circumstances would you choose to self-coach? (Tick all those applicable).

☐ No access to a coach where I live

☐ My sport does not have trained coaches

☐ I surpass the technical knowledge of my coach

☐ Financial expense

☐ Work commitments

☐ Family commitments

☐ Time restrictions

☐ Believe I can coach myself

☐ Prefer to self-coach

Other _____   _____

17. a) Rank these potential steps to self-coaching in priority order from 1-9 where 1 = the first step and 9 = the last step

(99)

☐   Develop self-awareness and self knowledge

☐   Identify personal philosophy

☐   Identify a vision

☐   Set goals

☐   Develop a plan of action

☐   Observe and self-reflect

☐   Assessment of your performance

☐   Make changes/corrections

☐   Reassess your performance

17. b) Are there any other important steps in self-coaching?

Yes ☐   No ☐

17. c) If yes, what are they?

_____

_____

17. d) Comments on these steps.

_____

_____

_____

18. Would you prefer to be :-   (111)

☐   Self-coached   ☐   Formally coached

☐   Combination of both

Why? _____

_____

19. a) What are the three most important advantages of self-coaching?

_____

_____

_____

19. b) What are the three most important disadvantages of self-coaching?

_____

_____

_____

20. a) Have you been a coach for any sport?   Yes ☐   No ☐

20 b) If yes, at what level?

_____

20. c) Describe three things you learned from your coaching experience which   (123)
helped you to self-coach?

_____

_____

_____

PART C   Comments

21. In the space provided please write any further comments that you may have on self-coaching.

_____

_____

_____

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Please return the questionnaire in the prepaid return envelope provided.
Thank you for taking time to complete this questionnaire.

Please return to Trish Bradbury, Massey University, Private Bag 102 904
North Shore Mail Centre, Auckland.

APPENDIX 2

INTERVIEW INFORMATION SHEET

Research Study: Self-coaching of Elite Athletes

Researcher: Trish Bradbury
Department of Management Systems
Massey University
Private Bag 102 904
North Shore Mail Centre
Telephone: 09-441-8128

Supervisor: Dr. Marilyn Waring
Department of Social Policy
Massey University
Private Bag 102 904
North Shore Mail Centre
Telephone: 09-443-9665

This sheet provides information about a research study, which explores the concept of self-coaching of elite athletes. If you agree to participate in this study, you may be asked to complete a questionnaire, which takes approximately 20 minutes.

You may also be invited as an interview subject. An interview session will not last over a 60 minute period. Session times will be arranged to suit you. Interview subjects have the right to decline consent for the interviews to be tape recorded, to turn off the tape at any time, to review copies of the transcripts, and the opportunity to make corrections or additional comments if so desired. The tapes may be transcribed by someone other than the researcher. In this case the transcriber will be asked to sign a confidentiality clause.

If you agree to participate in this study you have the right:

- to withdraw from this study at any time
- to withdraw any information you have provided for this study (before data collection is completed), without having to provide reasons and without penalty of any sort
- to ask any questions about the study before, during, or after your participation
- to provide information on the understanding that it is completely confidential to the researcher
- to agree or to not agree to the interview being taped. You may ask for the tape recorder to be turned off at any time.
- to be guaranteed anonymity. Most participants will be guaranteed anonymity as well as confidentiality. There will be situations when working with elite athletes where their public profile is so great that anonymity cannot be guaranteed. Where there is any doubt in the researcher's mind or the subject's mind that their participation may not be completely anonymous consent will be sought. This situation will be fully discussed with potential participants.
- to be given access to a summary of the findings from the study when it is concluded.

INTERVIEW CONSENT FORM

Research Study: An analysis of self-coaching of elite athletes.

You may be invited as an interview subject. An interview session will not last over a 60 minute period. Session times will be arranged to suit you. Interview subjects have the right to decline consent for the interviews to be tape recorded, to turn off the tape at any time, to review copies of the transcripts, and the opportunity to make corrections or additional comments if so desired. The tapes may be transcribed by someone other than the researcher. In this case the transcriber will be asked to sign a confidentiality clause.

If you agree to participate in this study you have the right:

- to withdraw from this study at any time

- to withdraw any information you have provided for this study (before data collection is completed), without having to provide reasons and without penalty of any sort

- to ask any questions about the study before, during, or after your participation

- to provide information on the understanding that it is completely confidential to the researcher

- to agree or to not agree to the interview being taped. You may ask for the tape recorder to be turned off at any time.

- to be guaranteed anonymity. Most participants will be guaranteed anonymity as well as confidentiality. There will be situations when working with elite athletes where their public profile is so great that anonymity cannot be guaranteed. Where there is any doubt in the researcher's mind or the subject's mind that their participation may not be completely anonymous consent will be sought. This situation will be fully discussed with potential participants.

- to be given access to a summary of the findings from the study when it is concluded.

By completing and returning this form you are indicating that you agree to participate in this study.

Name: _____
Address: _____
               _____
               _____
Phone #:   _____
Date: _____

APPENDIX 3

1996 OLYMPIC TEAM MEMBERS' INTERVIEW QUESTIONNAIRE

Name:

Address:

Sport:

Olympic Achievements:

Other Achievements:

Age:

How long have you played your sport? Socially: Competitively:

How old were you when you started playing your sport?

How did you become interested in playing your sport?

Where did you start playing?

What influence did your family/teacher/peers have in your involvement in this sport?

Does anyone else in your family play the sport?

What support does your family offer you?

How would you describe yourself in relation to your training?/What characteristics or qualities would you say are dominant in your sporting life?

Do you train full-time?   part-time?

What is your training regime?

COACHING

What are your expectations of a coach? technically? organisationally? support roles?

How would you describe formal coaching?

Do you/ did you have a full-time coach?   part-time coach?   coach yourself?
      combination?

How many coaches have you had?

What roles did these coaches play?

Could you be more explicit about the period from a developing to elite athlete?

Does your coach empower you - involve you in decisions concerning your training programme? technique analysis? organisation? competitive situations?

Do you travel to major competitions without your coach?

How do you deal with this situation?

What are some of the anxieties or problems that you have to deal with?

SELF-COACHING

Do you coach yourself?

How would you describe self-coaching?

What are your reasons for coaching yourself? / Why would athletes choose to coach themselves?

How do you coach yourself? / What did you do to coach yourself?

Do you follow a set process?

What are some strategies that you use / could use to help you self-coach?

How do you make decisions on: training programmes? technical correction of skills? analysis of the technical aspects of these skills? organisational aspects? training sessions? goal setting? motivation?

What qualities or characteristics must athletes who self-coach possess?

Are these different from formally coached athletes?

Do you believe that athletes can be taught to self-coach?

How can athletes be taught to self-coach?

Would self-coaching be beneficial to developing athletes? Why/why not?

Would self-coaching only be beneficial to elite athletes? Why/why not?

Is there anything else that you would like to add that hasn't been covered?

APPENDIX 4

OLYMPIC MEDAL WINNERS' INTERVIEW QUESTIONNAIRE

Name:

Address:

Sport:

Olympics:

Medal:

Age when won medal:

Age:

How long have you played your sport? Socially: Competitively:

How old were you when you started playing your sport?

How did you become interested in playing your sport?

Where did you start playing?

What influence did your family/teacher/peers have in your involvement in this sport?

Does anyone else in your family play the sport?

What support did your family offer you?

How would you describe yourself in relation to your training? / What characteristics were dominant in your sporting life?

Did you train full-time?   part-time?

What was your training regime?

COACHING

What were your expectations of a coach? technically? organisationally? support roles?

How would you describe formal coaching?

Did you have a full-time coach? / part-time coach? combination? coach yourself?

How many coaches have you had?

What roles did these coaches play? / What did these coaches do for you?

Could you be more explicit about that period from a developing to an elite athlete?

Did your coach empower you - involve you in decisions concerning your training programme? technique analysis? organisation? Competitive situations?

Did you travel to major competitions without your coach?

How did you deal with this situation?

What are some of the anxieties or problems that you had to deal with?

SELF-COACHING

Did you coach yourself?

How would you describe self-coaching?

What were your reasons for coaching yourself? / Why would athletes choose to coach themselves?

How did you coach yourself? What did you do to coach yourself?

Did you follow a set process?

What are some strategies that you used / could use to help you self-coach?

How did you make decisions on: training programmes? technical correction of skills? analysis the technical aspects of these skills? organisational aspects? training sessions? goal setting? motivation?

What qualities or characteristics do you believe athletes who self-coach must possess?

Are these different from formally coached athletes?

Do you believe that athletes can be taught to self-coach?

How can athletes be taught to self-coach?

Would self-coaching be beneficial to developing athletes? Why/why not?

Would self-coaching only be beneficial to elite athletes? Why/why not?

Is there anything else that you would like to add that hasn't been covered?

APPENDIX 5

SELF-COACHING OF ELITE ATHLETES MAIL SURVEY

Hello once again

Please find enclosed a survey which is designed to gather your ideas and opinions about the **description/definition of self-coaching**. The results of this survey will culminate the research that you were involved in throughout 1998. These results will be an important addition to the Doctoral thesis. Your responses will be completely anonymous and confidential. Your participation would be greatly appreciated

Your quick response is essential. Please complete and return the survey at your earliest possible convenience - preferably returned to me by **Friday 19 February**. A post paid reply envelope has been provided.

INSTRUCTIONS

STEP ONE

Turn to the page labelled CONCEPT RATING SHEET. Focus on the clarity of the description/definitions of self-coaching. Rate all the phrases, using the rating scheme provided, as they relate to being an effective description/definition. Record your ratings next to the phrase on the sheet marked CONCEPT RATING SHEET.

5 = critical to the description/definition of self-coaching, an absolute necessity
4 = important to the description/definition of self-coaching, most good descriptions have this
3 = helpful to the description/definition of self-coaching, a desirable description
2 = unimportant, non-essential, but could be a description in some cases
1 = neither adds nor detracts from the description/definition, makes no difference

STEP TWO

Turn to the envelope that includes the same phrases as in step one above, but which are presented as "cards". There are 67 cards with a phrase on each.

Reflect again on the description/definition of self-coaching. Sort the cards into similar groupings that make sense to you. There may be only one card in a group, or there may be many - you may NOT, however, put all the phrases into one group. When you have sorted them all, record your groupings on the last sheet of the survey (titled CONCEPT SORTING SHEET). The order in which you enter them does not matter, as long as you have captured the numbers of the phrases and the groups you see them belonging to.

STEP THREE

Return the CONCEPT RATING SHEET and the CONCEPT SORTING SHEET in the post paid reply envelope supplied OR fax on 09-441-8109 by **Friday 19 February.** If you have any queries please do not hesitate to contact me via email on P.E.Bradbury@massey.ac.nz or on 09-441-8128. Thank you once again for your time and participation in this research.

CONCEPT RATING SHEET

Please reflect on the clarity of **descriptions/definitions of self-coaching**. Then rate each phrase using the following scale:

5 = critical to the description/definition of self-coaching, an absolute necessity
4 = important to the description/definition of self-coaching, most good descriptions have this
3 = helpful to the description/definition of self-coaching, a desirable description
2 = unimportant, non-essential, but could be a description in some cases
1 = neither adds nor detracts from the description/definition, makes no difference

Please write the appropriate number in the bottom right hand corner of each box provided below:

| ITEM |
| "X" |

Independence (1)	Dedication (2)
Setting steps to achieve your goals (3)	Developing a plan of action (4)
Review the plan of action (5)	Identify what areas need work (6)
Analysing your own performance and technique (7)	Trying to affect your performance without outside help (8)
Producing results without someone "on your back" (9)	Doing extra training on your own (10)
Ability to motivate yourself (11)	Relaying information from the outside to coach yourself (12)
Ability to be self-critical (13)	Ability to pick yourself to bits in training (14)
Taking ownership of your training (15)	Experimenting in the absence of a coach (16)
Athletes training themselves (17)	Teaching yourself the craft of the sport (18)

Analysing and refining your training yourself (19)	The athlete takes control of everything related to the sport (20)
Need a body of skills and knowledge to build on (21)	A step above doing what your coach tells you to do (22)
Knowing what you want and doing it - even while your coach is there (23)	When you are driving every skill execution yourself (24)
Occurs most often when travelling (25)	Set your own plans, schedules and goals (26)
Identifying priorities to obtain what the athletes want (27)	The ability to get the best out of yourself (28)
To achieve and produce more than you thought you could produce (29)	The ability to focus and understand the differences between physical and emotional (30)
To focus on what you need to do (31)	The realisation of your performance (32)
To get the most potential out of yourself (33)	Monitoring yourself (34)
Knowing where you are going (35)	Achieving what you set out to do (36)
Looking after your own training (37)	Knowing what to do and when to do it (38)
Knowing your strengths and weaknesses (39)	Setting your own programmes (40)
The ability to bring out the best of yourself (41)	Researching all you need to know to become the best (42)
Putting the decisions for all responsibilities onto yourself but having outside influence to help you achieve (43)	Looking at yourself objectively and identifying strategies for improvement (44)
Doing it all for yourself (45)	Working on your own game and skills (46)
Knowing what is right for you and areas to improve in (47)	The ability to motivate yourself (48)

Discipline (49)	Being self-motivated (50)
Thinking about everything to improve your performance (51)	Not having a coach (52)
Thinking for yourself (53)	Putting what you have learned into practice (54)
Choosing what to do in training within a framework set by the coach (55)	Self-analysis (56)
Analysing your strengths and weaknesses (57)	Having an open and enquiring mind (58)
Athlete takes responsibility for the end result as opposed to the coach taking responsibility (59)	Knowing when to get outside help to achieve goals (60)
Practically being a coach yourself (61)	Being a coach and athlete at the same time (62)
Can have a coach but still self-coach (63)	Do things to benefit yourself (64)
Self-sufficiency (65)	Reading books (66)
Discussing problems with others (67)	

CONCEPT SORTING SHEET

Use the cards in the envelope which are related to the **description or definition of self-coaching**. Consider all items in light of the best description/definition. Sort the cards into groups that represent like or related items. Use each card **only once**.

For each grouping, record the numbers of the cards you have sorted into that group.

EXAMPLE:

GROUPING # 1 13, 2, 76, 15, 4, 10, 45, 23, 47	GROUPING # 2 27, 61, 46, 64, 65, 12, 17, 34, 3, 11, 24, 36, 42, 67, 82

Please write your choices CLEARLY.

#1	#2
#3	#4
#5	#6
#7	#8
#9	#10
#11	#12

Please use the back of the page if you have more than 12 groups.

SELF-COACHING OF ELITE ATHLETES MAIL SURVEY

Hello once again

Please find enclosed a survey, which is designed to gather your ideas and opinions about the **description/definition of formal coaching**. The results of this survey will culminate the research that you were involved in throughout 1998. These results will be an important addition to the Doctoral thesis. Your responses will be completely anonymous and confidential. Your participation would be greatly appreciated

Your quick response is essential. Please complete and return the survey at your earliest possible convenience - preferably returned to me by **Friday 19 February**. A post paid reply envelope has been provided.

INSTRUCTIONS

STEP ONE

Turn to the page labelled CONCEPT RATING SHEET. Focus on the clarity of the listed descriptions/definitions of formal coaching. Rate all the phrases, using the rating scheme provided, as they relate to being an effective description/definition. Record your ratings next to the phrase on the sheet marked CONCEPT RATING SHEET.

5 = critical to the description/definition of formal coaching, an absolute necessity
4 = important to the description/definition of formal coaching, most good descriptions would have this
3 = helpful to the description/definition of formal coaching, a desirable description
2 = unimportant, non-essential, but could be a description/definition in some cases
1 = neither adds nor detracts from the description/definition, makes no difference

STEP TWO

Turn to the envelope that includes the same phrases as in step one above, but which are presented on "cards". There are59 cards with a phrase on each.

Reflect again on the description/definition of formal coaching. Sort the cards into similar groupings that make sense to you. There may be only one card in a group, or there may be many - you may NOT, however, put all the phrases into one group. When you have sorted them all, record your groupings on the last sheet of the survey (titled CONCEPT SORTING SHEET). The order in which you enter them does not matter, as long as you have captured the numbers of the phrases and the groups you see them belonging to.

STEP THREE

Return the CONCEPT RATING SHEET and the CONCEPT SORTING SHEET in the post paid reply envelope supplied OR fax on 09-441-8109 at your earliest convenience. If you have any queries please do not hesitate to contact me via email on P.E.Bradbury@massey.ac.nz or on 09-443-9799 extension 9569. Thank you once again for your time and participation in this research.

CONCEPT RATING SHEET

Please reflect on the clarity of **descriptions/definitions of formal coaching**. Then rate each phrase using the following scale:

5 = critical to the description/definition of formal coaching, an absolute necessity
4 = important to the description/definition of formal coaching, most good descriptions would have this
3 = helpful to the description/definition of formal coaching, a desirable description
2 = unimportant, non-essential, but could be a description/definition in some cases
1 = neither adds nor detracts from the description/definition, makes no difference

Please write the appropriate number in the bottom right hand corner of each box provided below:

```
ITEM
         "X"
```

Passing on knowledge (1)	Coach physically being at training (2)
Giving advice (3)	Passing on experience (4)
Someone who is paid to coach (5)	Someone who is self-sufficient financially (6)
Someone who provides feedback (7)	Having a good relationship with the athlete (8)
Has to be able to explain things simply (9)	An amateur psychologist (10)
Has to be able to devote time required (11)	Someone looking from the outside to aid goal achievement (12)
Another pair of eyes and another brain (13)	Someone who observes you objectively (14)
To assist in training or competition if asked (15)	Passing on of information to an athlete who lacks certain skills (16)
To be a mirror for the athletes to see themselves realistically (17)	To put information and ideas in front of the athlete (18)
A technical direction (19)	Overseeing performances and training (20)

Observation to help the athlete improve (21)	Bringing out more in an athlete than they thought they had (22)
Being a role model (23)	Having a coach there most of the time (24)
Being supportive of the athlete (25)	Getting the basics right (26)
A mental or physical discipline of the athlete (27)	Achieving the best in the sport (28)
Pushing the athlete past what they feel they can achieve (29)	A mentoring role (30)
Setting goals, plans, implementing them, and review (31)	Coaching is not being the motivator (32)
Clarifying things for the athlete (33)	Problem-solving (34)
Instigating measurable performance improvement in the athlete (35)	A catalyst for athlete improvement (36)
A sounding board (37)	A friendship relationship (38)
Guidance (39)	Setting training and competition programmes (40)
Doing all the worrying for the athlete (41)	Developing the technical and tactical skills (42)
Being dynamic and open-minded (43)	Developing physiological and emotional training programmes (44)
Gaining the maximum performance from an athlete (45)	Maximising an athlete's potential (46)
Leading (47)	Ability to discern if an athlete has ability (48)
A confidante (49)	An effort shared by the coach and the athlete (50)
Attempting to get an athlete to perform a skill correctly (51)	Motivation of the athlete (52)

Teaching the basics and techniques (53)	Teaching fair play and respect of another's ability (54)
Teaching the strategies needed to compete (55)	Guidance to develop the athletes themselves (56)
Develops programmes for the athlete (57)	Teaching (58)
Someone who is able to devote the time required (59)	

CONCEPT SORTING SHEET

Use the cards in the envelope which are related to the **description or definition of formal coaching**. Consider all items in light of the best description/definition. Sort the cards into groups that represent like or related items. Use each card **only once**.

For each grouping, record the numbers of the cards you have sorted into that group.

EXAMPLE:

GROUPING # 1	GROUPING # 2
13, 2, 76, 15, 4, 10, 45, 23, 47	27, 61, 46, 64, 65, 12, 17, 34, 3, 11, 24, 36, 42, 67, 82

Please write your choices CLEARLY.

#1	#2
#3	#4
#5	#6
#7	#8
#9	#10
#11	#12

Please use the back of the page if you have more than 12 groups.

SELF-COACHING OF ELITE ATHLETES MAIL SURVEY

Hello once again

Please find enclosed a survey which is designed to gather your ideas and opinions about the **reasons why athletes may choose to self-coach**. The results of this survey will culminate the research that you were involved in throughout 1998. These results will be an important addition to the Doctoral thesis. Your responses will be completely anonymous and confidential. Your participation would be greatly appreciated

Your quick response is essential. Please complete and return the survey at your earliest possible convenience - preferably returned to me by **Friday 19 February**. A post paid reply envelope has been provided.

INSTRUCTIONS

STEP ONE

Turn to the page labelled CONCEPT RATING SHEET. Focus on the validity of the reasons suggested as to why an athlete may choose to self-coach. Rate all the phrases, using the rating scheme provided, as they relate to being a valid reason. Record your ratings next to the phrase on the sheet marked CONCEPT RATING SHEET.

5 = critical reason why an athlete may choose to self-coach, an absolute necessity
4 = important reason why an athlete may choose to self-coach, most athletes would self-coach for this reason
3 = helpful reason understand why an athlete may self-coach, an understandable reason
2 = unimportant, non-essential, but could be a reason in some cases
1 = neither adds nor detracts from why an athlete may self-coach, makes no difference

STEP TWO

Turn to the envelope that includes the same phrases as in step one above, but presented in "cards". There should be a total of 59 cards with a phrase on each.

Reflect again on the reasons why an athlete may choose to self-coach. Sort the cards into similar groupings that make sense to you. There may be only one card in a group, or there may be many - you may NOT, however, put all the phrases into one group. When you have sorted them all, record your groupings on the last sheet of the survey (labelled CONCEPT SORTING SHEET,). The order in which you enter them does not matter, as long as you have captured the numbers of the phrases and the groups you see them belonging to.

STEP THREE

Return the CONCEPT RATING SHEET and the CONCEPT SORTING SHEET in the post paid reply envelope supplied OR fax on 09-441-8109 by **Friday 19 February.** If you have any queries please do not hesitate to contact me via email on P.E.Bradbury@massey.ac.nz or on 09-441-8128. Thank you once again for your time and participation in this research.

CONCEPT RATING SHEET

Please reflect on the **reasons why an athlete may choose to self-coach**. Then rate each phrase using the following scale:

5 = critical reason why an athlete may choose to self-coach, an absolute necessity
4 = important reason why an athlete may choose to self-coach, most athletes would self-coach for this reason
3 = helpful reason to understand why an athlete may self-coach, an understandable reason
2 = unimportant, non-essential, but could be a reason in some cases
1 = neither adds nor detracts from why an athlete may self-coach, makes no difference

Please write the appropriate number in the bottom right hand corner of each box provided below:

ITEM	
	"X"

Timing convenient for the athlete and not the coach (1)	Coaches not available to commit amount of time required (2)
Having a coach is time consuming (3)	Timing awkward to fit family schedule (4)
It is easier and fits to the athlete's schedule (5)	Lack of time (6)
Too expensive (7)	Financial reasons (8)
Athletes believe they can do a better job than a coach (9)	So much information available athletes think they can self-coach (10)
Athlete knows enough about the sport and doesn't need a coach (11)	Athletes make the decisions and buy into the plan (12)
Athletes feel they know themselves better and want to prove a point (13)	Athletes like to be their own boss determining their own destiny (14)
Coach can not fit in with the athlete's lifestyle (15)	Arrogant athletes (16)

Athletes think they don't need a coach (17)	Lack of finances (18)
Incompatibility with the coach (19)	Spend their finances elsewhere (20)
Athlete's seeking self-fulfilment (21)	Acceptance of a challenge (22)
Athletes rather self-coach (23)	Societal influence to be individual (24)
Lack of confidence in a coach (25)	Want some control over their coaching (26)
Where athlete is in life and acceptance of authority (27)	Can't accept being told what to do (28)
Can't blame anyone else if you self-coach (29)	Want to be responsible for the outcomes (30)
Lack of respect in a coach (31)	Lack of belief in a coach (32)
Lack of trust in a coach (33)	Lack of elite level coaches (34)
Coaching procedures aren't suited to the athlete (35)	Coach trained the athlete to coach themselves (36)
Lack of faith in a coach (37)	Sparseness of qualified coaches (38)
Coaches not available with specific coaching skills required (39)	Elite level athletes don't always need a coach (40)
Athletes don't want to rely on a coach (41)	Athletes feel experienced enough to self-coach (42)
Athletes forced to by circumstances (43)	Determined to self-coach at the elite level (44)
Like doing everything by themselves and their way (45)	No coaches trained in their sport (46)

Athletes think they know more than a coach (47)	Don't like the discipline that a formal coach puts on them (48)
Traditionally athletes have done it on their own (49)	No expert coaches where they life (50)
Coaches too demanding (51)	Coaches unable to travel overseas with the athletes (52)
Independent athletes who like to self-coach (53)	Coach is too busy to be with the athlete all the time (54)
Self-opinionated (55)	Athlete wants to become a coach so practices self-coaching (56)
Idea of self-coaching becoming more prevalent (57)	

CONCEPT SORTING SHEET

Use the cards in the envelope which are related to **reasons why athletes may choose to self-coach**. Consider all items in light of the reasons suggested. Sort the cards into groups that represent like or related items. Use each card **only once**.

For each grouping, record the numbers of the cards you have sorted into that group.

EXAMPLE:

GROUPING # 1 13, 2, 76, 15, 4, 10, 45, 23, 47	GROUPING # 2 27, 61, 46, 64, 65, 12, 17, 34, 3, 11, 24, 36, 42, 67, 82

Please write your choices CLEARLY.

#1	#2
#3	#4
#5	#6
#7	#8
#9	#10
#11	#12

Please use the back of the page if you have more than 12 groups.

SELF-COACHING OF ELITE ATHLETES MAIL SURVEY

Hello once again

Please find enclosed a survey which is designed to gather your ideas and opinions about the **characteristics/qualities required of athletes who self-coach**. The results of this survey will culminate the research that you were involved in throughout 1998. These results will be an important addition to the Doctoral thesis. Your responses will be completely anonymous and confidential. Your participation would be greatly appreciated

Your quick response is essential. Please complete and return the survey at your earliest possible convenience - preferably returned to me by **Friday 19 February**. A post paid reply envelope has been provided.

INSTRUCTIONS

STEP ONE

Turn to the page labelled CONCEPT RATING SHEET. Focus on the effectiveness of the listed characteristics/qualities required of an athlete who self-coaches. Rate all the phrases, using the rating scheme provided, as they relate to being an effective characteristic/quality. Record your ratings next to the phrase on the sheet marked CONCEPT RATING SHEET.

5 = critical for an athlete who self-coaches, an absolute necessity
4 = important for an athlete who self-coaches, most good self-coached athletes have this
3 = helpful for an athlete who self-coaches, a desirable characteristic
2 = unimportant, non-essential, but could assist in some cases
1 = neither adds nor detracts from a self-coached athlete, makes no difference

STEP TWO

Turn to the envelope that includes the same phrases as in step one above, but presented in "cards". There should be a total of 82 cards with a phrase on each.

Reflect again on the required characteristics/qualities of athletes who self-coach. Sort the cards into similar groupings that make sense to you. There may be only one card in a group, or there may be many - you may NOT, however, put all the phrases into one group. When you have sorted them all, record your groupings on the last sheet of the survey (titled CONCEPT SORTING SHEET). The order in which you enter them does not matter, as long as you have captured the numbers of the phrases and the groups you see them belonging to.

STEP THREE

Return the CONCEPT RATING SHEET and the CONCEPT SORTING SHEET in the post paid reply envelope supplied OR fax on 09-441-8109 as soon as possible. If you have any queries please do not hesitate to contact me via email on P.E.Bradbury@massey.ac.nz or on 09-443-9799 extension 9569. Thank you once again for your time and participation in this research.

CONCEPT RATING SHEET

Please reflect on the **characteristics/qualities necessary for effective self-coaching**. Then rate each phrase using the following scale:

5 = critical for an athlete who self-coaches, an absolute necessity
4 = important for an athlete who self-coaches, most good self-coached athletes have this
3 = helpful for an athlete who self-coaches, a desirable characteristic
2 = unimportant, non-essential, but could assist in some cases
1 = neither adds nor detracts from a self-coached athlete, makes no difference

Please write the appropriate number in the bottom right hand corner of each box provided below:

ITEM "X"

Self-belief (1)	Confident (2)
Competent (3)	Self -ability (4)
Analytical (5)	Problem-solver (6)
Determined (7)	Disciplined (8)
Self-motivated (9)	Honest (10)
Time management skills (11)	Organisation skills (12)
Self-critical (13)	Visionary (14)
Listen to others (15)	Take advice (16)
Structured thought processes (17)	Technical (18)
Focus (19)	Dedicated (20)
Independent (21)	Strong-minded (22)

Tenacious (23)	Mental hardness (24)
Have to enjoy it (25)	Single minded (26)
Stubborn (27)	Open-minded (28)
Committed (29)	Drive (30)
Passionate (31)	Obsessive (32)
Positive attitude (33)	Common sense (34)
Intelligent (35)	Temperament (36)
Physically strong (37)	Self-centred (38)
Selfish (39)	Subservient (40)
Respect (41)	Arrogant (42)
Responsible (43)	Objective (44)
Self-sufficiency (45)	Perception (46)
Relaxed (47)	Diligence (48)
Good self-esteem (49)	Competitive (50)
Patience (51)	Perfectionist (52)
Inquisitive (53)	Conscientious (54)

Talented (55)	Methodical (56)
Mental Attitude (57)	Thick skinned (58)
Practical person (59)	Relaxation (60)
Management skills (61)	Love what they do (62)
Self-responsible (63)	Knowledgeable (64)
Stubbornness (65)	Good work ethic (66)
Competent (67)	Positive (68)
Attitude (69)	Critical (70)
Self-reflective (71)	Tenacity (72)
Keen (73)	Realistic (74)
Prepared to make sacrifices (75)	Self-analysis (76)
Self-determined (77)	Self-honesty (78)
Self starter (79)	Experienced (80)
Healthy fear (81)	Concentration (82)

CONCEPT SORTING SHEET

Use the cards in the envelope which are related to the **characteristics/qualities of athletes who self-coach**. Consider all items in light of required characteristics/qualities. Sort the cards into groups that represent like or related items. Use each card **only once**.

For each grouping, record the numbers of the cards you have sorted into that group.

EXAMPLE:

GROUPING # 1	GROUPING # 2
13, 2, 76, 15, 4, 10, 45, 23, 47	27, 61, 46, 64, 65, 12, 17, 34, 3, 11, 24, 36, 42, 67, 82

Please write your choices CLEARLY.

#1	#2
#3	#4
#5	#6
#7	#8
#9	#10
#11	#12

Please use the back of the page if you have more than 12 groups.

SELF-COACHING OF ELITE ATHLETES MAIL SURVEY

Hello once again

Please find enclosed a survey which is designed to gather your ideas and opinions about the **steps/processes for self-coaching**. The results of this survey will culminate the research that you were involved in throughout 1998. These results will be an important addition to the Doctoral thesis. Your responses will be completely anonymous and confidential. Your participation would be greatly appreciated

Your quick response is essential. Please complete and return the survey at your earliest possible convenience - preferably returned to me by the **Friday 19 February**. A post paid reply envelope has been provided.

INSTRUCTIONS

STEP ONE

Turn to the page labelled CONCEPT RATING SHEET. Focus on the effectiveness of the listed steps/processes required to self-coach. Rate all the phrases, using the rating scheme provided, as they relate to being an effective step/process. Record your ratings next to the phrase on the sheet marked CONCEPT RATING SHEET.

5 = critical step for an athlete who self-coaches, an absolute necessity
4 = important step for an athlete who self-coaches, most good self-coached athletes do this
3 = helpful step for an athlete who self-coaches, a desirable step/process
2 = unimportant, non-essential, but could assist in some cases
1 = neither adds nor detracts to steps required to self-coach, makes no difference

STEP TWO

Turn to the envelope that includes the same phrases as in step one above, but which are presented in "cards". There are 46 cards with a phrase on each.

Reflect again on the required steps/processes for self-coaching. Sort the cards into similar groupings that make sense to you. There may be only one card in a group, or there may be many - you may NOT, however, put all the phrases into one group. When you have sorted them all, record your groupings on the last sheet of the survey (titled CONCEPT SORTING SHEET). The order in which you enter them does not matter, as long as you have captured the numbers of the phrases and the groups you see them belonging to.

STEP THREE

Return the CONCEPT RATING SHEET and the CONCEPT SORTING SHEET in the post paid reply envelope supplied OR fax on 09-441-8109 at your earliest convenience. If you have any queries please do not hesitate to contact me via email on P.E.Bradbury@massey.ac.nz or on 09-443-9799 extension 9569. Thank you once again for your time and participation in this research.

CONCEPT RATING SHEET

Please reflect on the **steps/processes necessary for effective self-coaching**. Then rate each phrase using the following scale:

5 = critical step for an athlete who self-coaches, an absolute necessity
4 = important step for an athlete who self-coaches, most good self-coached athletes do this
3 = helpful step for an athlete who self-coaches, a desirable step/process
2 = unimportant, non-essential, but could assist in some cases
1 = neither adds nor detracts to steps required to self-coach, makes no difference

Please write the appropriate number in the bottom right hand corner of each box provided below:

ITEM

"X"

Identify what you want to do (1)	Identify what you want to achieve (2)
Identify where you are (3)	Set goals and objectives (4)
Identify the steps to achieve the goals set (5)	Write a programme (6)
Set a progression type plan (7)	Think how to do it better (8)
Discuss with others (9)	Ask questions (10)
Analyse everything (11)	Set realistic standards (12)
Know world standards as a guide (13)	Analyse previous performances (14)
Identify skills and drills to correct performances (15)	Identify strengths and weaknesses (16)
Plan all the training and competition sessions (17)	Critique and evaluate the plan and trainings (18)
Seek assistance of an outside observer (19)	Good organisation and preparation (20)

Write plans systematically (21)	Make a vision statement (22)
Identify strategies for each step (23)	Set a 1, 3, 5 year plan (24)
Monitor and revise the plan (25)	Self-analyse (26)
Make a written plan (27)	Implement the plan (28)
Set a time frame for each goal (29)	Experiment with different approaches (30)
Identify each training session goals (31)	Reflect on what works in each training (32)
Keep a journal for review (33)	Analyse various training methods (34)
Identify remedies for improvement (35)	Set weekly plans (36)
Set a plan working backwards from the end output (37)	Incorporate flexibility (38)
Have an outside advisor review the plan (39)	Identify long term and short term goals (40)
Trial different training methods (41)	Make a planning wall chart for each month (42)
Break down training into pre -, in season, and + post-season sessions (43)	Accountability at year end by review and analysis (44)
Set realistic and achievable goals (45)	Use a planned approach by periodisation (46)

CONCEPT SORTING SHEET

Use the cards in the envelope which are related to the **step or processes for self-coaching**. Consider all items in light of the best steps or processes. Sort the cards into groups that represent like or related items. Use each card **only once**.

For each grouping, record the numbers of the cards you have sorted into that group.

EXAMPLE:

GROUPING # 1	GROUPING # 2
13, 2, 76, 15, 4, 10, 45, 23, 47	27, 61, 46, 64, 65, 12, 17, 34, 3, 11, 24, 36, 42, 67, 82

Please write your choices CLEARLY.

#1	#2
#3	#4
#5	#6
#7	#8
#9	#10
#11	#12

Please use the back of the page if you have more than 12 groups.

SELF-COACHING OF ELITE ATHLETES MAIL SURVEY

Hello once again

Please find enclosed a survey which is designed to gather your ideas and opinions about the **strategies to enhance self-coaching**. The results of this survey will culminate the research that you were involved in throughout 1998. These results will be an important addition to the Doctoral thesis. Your responses will be completely anonymous and confidential. Your participation would be greatly appreciated

Your quick response is essential. Please complete and return the survey at your earliest possible convenience - preferably returned to me **Friday 19 February**. A post paid reply envelope has been provided.

INSTRUCTIONS

STEP ONE

Turn to the page labelled CONCEPT RATING SHEET. Focus on the effectiveness of the listed strategies required to enhance the self-coaching of elite athletes. Rate all the phrases, using the rating scheme provided, as they relate to being an effective strategy. Record your ratings next to the phrase on the sheet marked CONCEPT RATING SHEET.

5 = critical strategy for an athlete who self-coaches, an absolute necessity
4 = important strategy for an athlete who self-coaches, most good self-coached athletes would do this
3 = helpful strategy for an athlete who self-coaches, a desirable strategy
2 = unimportant, non-essential strategy, but could assist in some cases
1 = neither adds nor detracts to enhance self-coaching, makes no difference

STEP TWO

Turn to the envelope that includes the same phrases as in step one above, but which are presented in "cards". There are 89 cards with a phrase on each.

Reflect again on the strategies that may enhance self-coaching of elite athletes. Sort the cards into similar groupings that make sense to you. There may be only one card in a group, or there may be many - you may NOT, however, put all the phrases into one group. When you have sorted them all, record your groupings on the last sheet of the survey (titled CONCEPT SORTING SHEET). The order in which you enter them does not matter, as long as you have captured the numbers of the phrases and the groups you see them belonging to.

STEP THREE

Return the CONCEPT RATING SHEET and the CONCEPT SORTING SHEET in the post paid reply envelope supplied OR fax on 09-441-8109 at your earliest convenience. If you have any queries please do not hesitate to contact me via email on P.E.Bradbury@massey.ac.nz or on 09-443-9799 extension 9569. Thank you once again for your time and participation in this research.

CONCEPT RATING SHEET

Please reflect on the **strategies to enhance effective self-coaching**. Then rate each phrase using the following scale:

5 = critical strategy for an athlete who self-coaches, an absolute necessity
4 = important strategy for an athlete who self-coaches, most good self-coached athletes would do this
3 = helpful strategy for an athlete who self-coaches, a desirable strategy
2 = unimportant, non-essential strategy, but could assist in some cases
1 = neither adds nor detracts to enhance self-coaching, makes no difference

Please write the appropriate number in the bottom right hand corner of each box provided below:

```
┌─────────────────────┐
│ ITEM                │
│              "X"    │
└─────────────────────┘
```

Videos of yourself for analysis (1)	Videos of elite athletes (2)
Videos of major international competitions (3)	Video opposition (4)
Discussions with other elite athletes (5)	Ask questions of other elite athletes (6)
Talk to other elite athletes and take what works for you (7)	Feedback from what other competitors are doing (8)
Share knowledge with other athletes (9)	Bounce ideas off another person (10)
Spend time with other elite athletes (11)	Note what other sports do (12)
Listen to other athletes suggestions (13)	Compare yourself to other elite athletes (14)
Seek advice from someone in another sport (15)	Learn from more experienced athletes (16)
Learn from role models (17)	Talk to coaches from around the world (18)
Take different ideas from training camps (19)	Sport science testing (20)

Electronic testing devices (21)	Stopwatch (22)
Time standards comparisons (23)	Performance standard comparisons (24)
Heart rate monitors (25)	Sport psychology (26)
Experimenting with new training methods (27)	Reading books, magazines and journals (28)
Watching documentaries (29)	Using computer technology (30)
Using CD roms (31)	Using the Internet (32)
Collect information (33)	Attend coaching seminars (34)
Read motivational books (35)	Contact authors of resource books (36)
Keep up to date on new information (37)	Attend seminars (38)
Listen to audiotapes (39)	Experience (40)
Trial and error (41)	Learn from your mistakes (42)
Knowledge of your body (43)	Feedback from your body (44)
Train at convenient times for your body (45)	Having a good feel for your equipment (46)
Training diary (47)	Observe other elite athletes (48)
Watch your own performance (49)	Observe and analyse opposition (50)
Ability to concentrate for long periods of time (51)	Having a good understanding of the mechanics of your equipment (52)

Understand the role of the coach to fulfil it yourself (53)	Absorb yourself in the environment (54)
Build a partnership (55)	Train with other elite athletes (56)
Simulation games (57)	Have a training partner (58)
Use mirrors to watch yourself (59)	Have an advisor or mentor (60)
Have an outside observer (61)	Get feedback from a mentor or outside observer (62)
Outside influence to offer feedback (63)	Feedback from outside observer on technical aspects (64)
Other coaches give feedback (65)	Outside observer/advisor as a sounding board (66)
Be open to ideas and change (67)	Attend training camps (68)
Sound off with training partner (69)	Visualisation (70)
Goal setting (71)	Awareness of goals to be achieved (72)
Reflect on your performance (73)	Be aware of your competition (74)
Awareness (75)	Develop competition plans and tactics (76)
Know your strengths and weaknesses (77)	Constantly thinking (78)
Train with athletes from other countries (79)	Learn from coaching experiences (80)
Chart an annual plan (81)	Build up a support team (82)
Digital cameras (83)	Training recording forms (84)
Testing the equipment (85)	Train with the best athletes possible (86)
Devise a planning calendar (87)	Statistics (88)
Personal development activities (89)	

CONCEPT SORTING SHEET

Use the cards in the envelope which are related to **strategies self-coached athletes could use to enhance their self-coaching**. Consider all items in light of the best strategies. Sort the cards into groups that represent like or related items. Use each card **only once**.

For each grouping, record the numbers of the cards you have sorted into that group.

EXAMPLE:

GROUPING # 1 13, 2, 76, 15, 4, 10, 45, 23, 47	GROUPING # 2 27, 61, 46, 64, 65, 12, 17, 34, 3, 11, 24, 36, 42, 67, 82

Please write your choices CLEARLY.

#1	#2
#3	#4
#5	#6
#7	#8
#9	#10
#11	#12

Please use the back of the page if you have more than 12 groups.

APPENDIX 6

CLUSTER LISTING WITH BRIDGING AND RATING VALUES FOR THE DEFINITION OF SELF-COACHING.

CLUSTER NUMBERS, NAMES AND ITEMS	Bridging Value	Rating Value
Cluster 1 Self-Analysis		
1. Independence	0.79	4.33
13. Ability to be self-critical	0.50	4.00
28. The ability to get the best out of yourself	0.78	4.33
2. Dedication	0.47	4.67
53. Thinking for yourself	0.34	4.17
56. Self-analysis	0.54	4.00
Cluster 2 Self-Achievement		
18. Teaching yourself the craft of the sport	0.34	3.00
33. To get the most potential out of yourself	0.52	3.83
41. The ability to bring the best out of yourself	0.71	4.17
Cluster 3 Performance Review		
5. Review the plan of action	0.12	3.67
7. Analysing your own performance and technique	0.02	4.33
19. Analysing and refining your training yourself	0.04	4.00
51. Thinking about everything to improve your performance	0.00	3.83
Cluster 4 Motivation		
11. Ability to motivate yourself	0.23	4.33
48. The ability to motivate yourself	0.19	4.50
39. Knowing your strengths and weaknesses	0.14	4.00
44. Looking at yourself objectively and identifying strategies	0.28	3.67
50. Being self-motivated	0.19	4.50
65. Self-sufficiency	0.37	3.83
27. Identifying priorities to obtain what the athletes want	0.38	3.17
32. The realisation of your performance	0.34	3.50
Cluster 5 Vision Development		
3. Setting steps to achieve your goals	0.11	4.50
4. Developing a plan of action	0.10	4.17
6. Identify what areas need work	0.18	4.50
31. To focus on what you need to do	0.06	3.67
36. Achieving what you set out to do	0.06	4.17
57. Analysing your strengths and weaknesses	0.13	4.17
34. Monitoring yourself	0.11	3.50

35. Knowing where you are going	0.10	4.00
37. Looking after your own training	0.06	4.00
47. Knowing what is right for you and areas to improve in	0.15	4.00
49. Discipline	0.21	4.33
Cluster 6 Programme Plan Development		
15. Taking ownership of your training	0.29	4.17
26. Set your own plans, schedules and goals	0.14	3.67
40. Setting your own programme	0.18	2.67
38. Knowing what to do and when to do it	0.14	4.17
46. Working on your own game and skills	0.17	3.17
Cluster 7 Ownership of Training		
8. Trying to affect your performance without outside help	0.05	2.83
23. Knowing what you want and doing it - even while your coach is there	0.26	2.50
9. Producing results without someone on your back	0.24	2.33
59. Athlete takes responsibility for the end result as opposed to the coach	0.27	4.00
63. Can have a coach but still self-coach	0.17	3.33
24. When you are driving every skill execution yourself	0.30	3.17
29. To achieve and produce more than you thought you could produce	0.24	4.00
17. Athletes training themselves	0.24	3.50
30. The ability to focus and understand the differences between physical and emotional	0.19	3.33
64. Do things to benefit yourself	0.18	3.33
Cluster 8 Coach Attributes		
14. Ability to pick yourself to bits in training	0.23	1.83
61. Practically being a coach yourself	0.22	3.33
20. The athlete takes control of everything related to the sport	0.29	2.17
52. Not having a coach	0.36	2.17
16. Experimenting in the absence of a coach	0.43	2.33
45. Doing it all for yourself	0.33	2.33
21. Need a body of skills and knowledge to build on	0.25	3.17
62. Being a coach and athlete at the same time	0.30	3.17
54. Putting what you have learned into practice	0.21	3.83

Cluster 9 Upskilling		
10. Doing extra training on your own	0.94	3.33
67. Discussing problems with others	1.00	4.17
58. Having an open and enquiring mind	0.91	4.00
42. Researching all you need to know to become the best	0.51	3.17
66. Reading books	0.54	3.17
60. Knowing when to get outside help to achieve goals	0.66	4.17
Cluster 10 Integrating Knowledge		
12. Relaying information from the outside to coach yourself	0.84	4.33
43. Putting the decisions for all responsibilities onto yourself	0.99	3.50
55. Choosing what to do in training within a framework set by the coach	0.83	4.00
25. Occurs most often when travelling	0.75	1.83

APPENDIX 7

CLUSTER LISTING WITH BRIDGING AND RATING VALUES FOR THE DEFINITION OF FORMAL COACHING.

CLUSTER NUMBERS, NAMES AND ITEMS	Bridging Value	Rating Value
Cluster 1 Teaching the Basics		
1. Passing on knowledge	0.20	5.00
16. Passing on of information to an athlete who lacks certain skills	0.20	5.00
58. Teaching	0.20	4.67
26. Getting the basics right	0.19	5.00
51. Attempting to get an athlete to perform a skill correctly	0.19	5.00
53. Teaching the basics and techniques	0.19	5.00
42. Developing the technical and tactical skills	0.19	4.67
Cluster 2 Advisor		
3. Giving advice	0.44	4.67
27. A mental or physical discipline of the athlete	0.42	3.33
31. Setting goals, plans, implementing them, and reviewing them	0.33	4.33
44. Developing physiological and emotional training programme	0.33	4.00
7. Someone who provides feedback	0.75	4.33
15. To assist in training or competition if asked	0.47	4.33
33. Clarifying things for the athlete	0.47	3.67
40. Setting training and competition programmes	0.52	4.67
57. Develops programmes for the athlete	0.52	4.00
Cluster 3 Relieving Pressure		
4. Passing on experience	1.00	3.67
23. Being a role model	0.63	3.67
24. Having a coach there most of the time	0.45	3.33
32. Coaching is not being the motivator	0.13	2.00
41. Doing all the worrying for the athlete	0.28	2.33
5. Someone who is paid to coach	0.00	2.00
6. Someone who is self-sufficient	0.00	2.00
Cluster 4 Coach - Athlete Dynamics		
8. Having a good relationship with the athlete	0.37	4.33
43. Being dynamic and open minded	0.37	3.67
38. A friendship relationship	0.48	2.67
13. Another pair of eyes and another brain	0.26	4.00
19. A technical direction	0.27	4.00
25. Being supportive of the athlete	0.25	4.33

Cluster 5 Mentor		
10. An amateur psychologist	0.72	2.67
12. Someone looking from the outside to aid goal achievement	0.73	4.00
30. A mentoring role	0.63	3.33
Cluster 6 Catalyst		
2. Coach physically being at training	0.04	3.67
47. Leading	0.04	3.67
50. An effort shared by the coach and the athlete	0.04	3.67
21. Observation to help the athlete improve	0.04	4.33
28. Achieving the best in the sport	0.04	3.67
20. Overseeing performances and training	0.04	4.00
17. To be a mirror for the athletes to see themselves realistically	0.20	3.67
37. A sounding board	0.20	3.67
49. A confidante	0.22	3.00
Cluster 7 Facilitator		
11. Has to be able to devote time required	0.10	4.00
39. Guidance	0.10	3.33
59. Someone who is able to devote the time required	0.10	4.33
14. Someone who observes you objectively	0.10	4.67
34. Problem solving	0.10	3.67
22. Bringing out more in an athlete than they thought they had	0.04	4.67
36. A catalyst for athlete improvement	0.04	4.67
52. Motivation of the athlete	0.04	4.00
29. Pushing the athlete past what they feel they can achieve	0.04	4.33
Cluster 8 Teaching Flair		
9. Has to be able to explain things simply	0.28	4.33
48. Ability to discern if an athlete has ability	0.28	4.00
56. Guidance to develop the athletes themselves	0.28	4.33
35. Instigating measurable performance improvement in the athlete	0.28	3.67
18. To put information and ideas in front of the athlete	0.27	4.33
54. Teaching fair play and respect of another's ability	0.27	4.33
45. Gaining the maximum performance from an athlete	0.32	4.33
46. Maximising an athlete's potential	0.32	4.33
55. Teaching the strategies needed to compete	0.32	4.67

APPENDIX 8

CLUSTER LISTING WITH BRIDGING AND RATING VALUES FOR REASONS TO SELF-COACH.

CLUSTER NUMBERS, NAMES AND ITEMS	Bridging Value	Rating Value
Cluster 1 Autonomy		
1. Timing convenient for the athlete and not the coach	0.69	3.50
5. It is easier and fits to the athlete's schedule	0.67	3.33
12. Athlete makes the decisions and buys into the plan	0.91	2.67
44. Determined to self-coach at the elite level	0.76	4.00
24. Societal influence to be individual	1.00	2.00
26. Want some control over their coaching	0.77	3.17
49. Traditionally athletes have done it on their own	0.81	1.50
Cluster 2 Self-Determination		
10. So much information available, athletes believe they can self-coach	0.52	2.67
53. Independent athletes who like to self-coach	0.52	3.50
14. Athletes like to be their own boss, determining their own destiny	0.85	3.00
42. Athletes feel experienced enough to self-coach	0.57	3.00
23. Athletes rather self-coach	0.60	3.50
27. Where athlete is in life and acceptance of authority	0.62	3.83
40. Elite level athletes don't always need a coach	0.64	3.33
56. Athlete wants to become a coach so practices self-coaching	0.55	2.83
Cluster 3 Unavailability of Trained Coaches		
2. Coach is not available to commit amount of time required	0.63	3.83
52. Coach is unable to travel overseas with the athletes	0.63	3.50
38. Sparseness of qualified coaches	0.41	3.50
39. Coaches not available with specific coaching skills required	0.39	3.67
50. No expert coaches where they live	0.39	4.00
34. Lack of elite level coaches	0.51	3.50
46. No coaches trained in their sport	0.69	4.00
Cluster 4 Inconvenience of Traditional Coaching		
3. Having a coach is time consuming	0.71	2.33
36. Coach trained the athlete to coach themselves	0.84	2.83
6. Lack of time	0.74	2.83
43. Athletes forced to by circumstances	0.77	3.67
4. Timing awkward to fit family schedule	0.59	3.00

15. Coach cannot fit in with the athlete's lifestyle	0.78	3.83
Cluster 5 Challenge/Self-fulfilment		
21. Athletes seeking self-fulfilment	0.64	3.50
22. Acceptance of a challenge	0.62	3.17
41. Athletes don't want to rely on a coach	0.68	3.17
54. Coach is too busy to be with the athlete all the time	0.70	3.17
Cluster 6 Financial Considerations		
7. To expensive	0.00	3.17
20. Spend their finances elsewhere	0.00	2.50
8. Financial reasons	0.09	3.67
18. Lack of finances	0.09	4.00
Cluster 7 Arrogance/Confidence in Self		
9. Athletes believe they can do a better job than the coach	0.59	3.17
11. Athlete knows enough about the sport and doesn't need a coach	0.58	3.17
57. Idea of self-coaching becoming more prevalent	0.56	2.17
30. Want to be responsible for the outcomes	0.69	2.83
45. Like doing everything by themselves and their way	0.60	3.83
13. Athletes feel they know themselves better and want to prove a point	0.49	3.00
16. Arrogant athletes	0.33	2.67
47. Athletes think they know more than a coach	0.33	3.33
17. Athletes think they don't need a coach	0.33	3.33
28. Can't accept being told what to do	0.47	3.50
55. Self-opinionated	0.39	3.17
Cluster 8 Incompatible with a Coach		
19. Incompatibility with the coach	0.64	3.67
35. Coaching procedures are not suited to the athlete	0.68	4.00
29. Can't blame anyone else if you self-coach	0.66	2.83
48. Don't like the discipline that a formal coach put on the athlete	0.59	3.17
Cluster 9 Lack of Confidence in a Coach		
25. Lack of confidence in a coach	0.58	4.00
32. Lack of belief in a coach	0.48	3.17
51. Coach is too demanding	0.60	2.00
31. Lack of respect in a coach	0.36	3.67
33. Lack of trust in a coach	0.36	3.67
37. Lack of faith in a coach	0.36	3.67

APPENDIX 9

CLUSTER LISTING WITH BRIDGING AND RATING VALUES FOR CHARACTERISTICS/QUALITIES OF ATHLETES WHO SELF-COACH.

CLUSTER NUMBERS, NAMES AND ITEMS	Bridging Value	Rating Value
Cluster 1 Self-Reliance		
1. Self-belief	0.34	4.80
76. Self-analysis	0.30	3.80
49. Good self-esteem	0.19	4.00
9. Self-motivated	0.14	4.80
77. Self-determined	0.15	4.20
63. Self-responsible	0.19	4.40
42. Arrogant	0.24	1.80
79. Self-starter	0.20	4.60
45. Self-sufficiency	0.17	4.20
78. Self-honesty	0.24	3.80
Cluster 2 Mental Resilience		
2. Confident	0.50	4.00
36. Temperament	0.27	3.60
54. Conscientious	0.54	4.40
13. Self-critical	0.33	3.80
24. Mental hardness	0.35	4.40
26. Single minded	0.19	3.80
57. Mental attitude	0.38	4.50
27. Stubborn	0.19	3.00
65. Stubbornness	0.22	3.40
Cluster 3 Tenacious Application		
7. Determined	0.16	4.00
20. Dedicated	0.17	4.80
48. Diligence	0.00	4.40
30. Drive	0.00	4.20
68. Positive	0.16	4.20
33. Positive attitude	0.19	4.40
8. Disciplined	0.54	4.80
72. Tenacity	0.18	4.40
22. Strong-minded	0.36	3.80
29. Committed	0.30	4.80
50. Competitive	0.04	4.60

Cluster 4 Conviction/Passionate Attitude		
19. Focus	0.47	3.80
23. Tenacious	0.66	3.60
31. Passionate	0.15	4.20
74. Realistic	0.21	4.20
58. Thick skinned	0.60	2.40
75. Prepared to make sacrifices	0.69	4.80
62. Love what they do	0.40	3.80
25. Have to enjoy it	0.26	3.60
69. Attitude	0.16	3.60
73. Keen	0.44	4.00
81. Healthy fear	0.28	3.40
Cluster 5 Sport As Priority		
32. Obsessive	0.13	2.40
39. Selfish	0.13	2.60
34. Common sense	0.36	4.20
38. Self-centered	0.31	2.80
Cluster 6 Positive Cognitive Abilities		
3. Competent	0.28	3.60
17. Structured thought processes	0.29	4.00
35. Intelligent	0.33	3.00
53. Inquisitive	0.32	3.00
4. Self-ability	0.18	3.80
70. Critical	0.31	3.00
44. Objective	0.13	4.00
82. Concentration	0.32	3.80
71. Self reflective	0.43	3.20
21. Independent	0.22	4.00
64. Knowledgeable	0.26	3.80
66. Good work ethic	0.14	3.80
Cluster 7 Methodical Organisational Skills		
5. Analytical	0.24	4.20
43. Responsible	0.41	3.80
59. Practical person	0.33	3.00
80. Experience	0.27	3.20
6. Problem-solver	0.27	3.00
12. Organisational skills	0.23	3.20
55. Talented	0.48	3.60
61. Management skills	0.17	3.60
11. Time management skills	0.22	3.20
18. Technical	0.28	3.60
56. Methodical	0.25	3.40
67. Competent	0.28	3.40

Cluster 8 Inner Strength		
10. Honest	0.41	3.80
14. Visionary	0.44	4.40
47. Relaxed	0.54	3.60
51. Patience	0.37	4.00
37. Physically strong	1.00	3.40
41. Respect	0.55	3.40
Cluster 9 Open-Minded		
15. Listen to others	0.65	3.60
40. Subservient	0.53	1.00
16. Take advice	0.32	3.80
28. Open minded	0.78	3.40
60. Relaxation	0.59	3.20
46. Perception	0.36	3.60
52. Perfectionist	0.37	3.40

APPENDIX 10

CLUSTER LISTING WITH BRIDGING AND RATING VALUES FOR STEPS TO ENHANCE SELF-COACHING.

CLUSTER NUMBERS, NAMES AND ITEMS	Bridging Value	Rating Value
Cluster 1 Strategic Intent/Goal Setting		
1. Identify what you want to do	0.33	5.00
2. Identify what you want to achieve	0.33	5.00
22. Make a vision statement	0.25	3.80
4. Set goals and objectives	0.15	4.80
12. Set realistic standards	0.24	4.00
20. Good organisation and preparation	0.29	4.80
40. Identify long term and short term goals	0.23	4.20
5. Identify the steps to achieve the goals set	0.38	4.60
45. Set realistic and achievable goals	0.27	4.00
Cluster 2 Write a Strategic Plan		
6. Write a programme	0.16	4.40
21. Write plans systematically	0.15	3.40
7. Set a progression type plan	0.11	3.60
43. Break down training into pre, in season and post season	0.12	4.20
29. Set a time frame for each goal	0.19	4.00
28. Implement the plan	0.20	4.20
46. Use a planned approach by periodisation	0.23	4.60
Cluster 3 Write a Tactical Plan		
17. Plan all the training and competition sessions	0.02	4.20
36. Set weekly plans	0.02	3.80
42. Make a planning wall chart for each month	0.02	3.40
24. Set a 1,3,5 year plan	0.00	4.00
27. Make a written plan	0.00	4.40
37. Set a plan working backwards from the end output	0.07	4.20
31. Identify each training session goals	0.14	4.20
Cluster 4 Experimental Analysis		
3. Identify where you are	0.99	4.80
9. Discuss with others	0.28	3.60
30. Experiment with different approaches	0.36	3.80
41. Trial different training methods	0.36	4.00

Cluster 5 Identify Feedback Mechanisms		
10. Ask questions	0.54	4.40
19. Seek assistance of an outside observer	0.54	3.80
39. Have an outside observer review the plan	0.46	3.20
23. Identify strategies for each step	0.52	4.20
38. Incorporate flexibility	1.00	4.60
Cluster 6 Monitor and Review		
8. Think how to do it better	0.31	4.80
15. Identify skills and drills to correct performances	0.31	4.80
25. Monitor and revise the plan	0.40	4.20
26. Self-analyse	0.35	4.80
16. Identify strengths and weaknesses	0.50	4.40
33. Keep a journal for review	0.54	4.00
Cluster 7 Control Mechanisms		
11. Analyse everything	0.18	4.00
18. Critique and evaluate the plan and trainings	0.30	4.20
32. Reflect on what works in each training	0.26	4.60
35. Identify remedies for improvement	0.24	4.80
34. Analyse various training methods	0.32	4.00
13. Know world standards as a guide	0.70	3.80
14. Analyse previous performances	0.42	4.40
44. Accountability at year end by review and analysis	0.63	4.00

APPENDIX 11

CLUSTER LISTING WITH BRIDGING AND RATING VALUES FOR STRATEGIES TO ENHANCE SELF-COACHING.

CLUSTER NUMBERS, NAMES AND ITEMS	Bridging Value	Rating Value
Cluster 1 Visual Feedback		
1. Videos of yourself for analysis	0.66	4.60
57. Simulation games	0.68	2.40
59. Use mirrors to watch yourself	0.48	2.40
49. Watch your own performance	0.44	4.20
89. Personal development activities	0.42	4.00
Cluster 2 Physical/Mental Programming		
40. Experience	0.30	4.20
51. Ability to concentrate for long periods of time	0.27	4.80
84. Training and recording forms	0.28	2.80
43. Knowledge of your body	0.09	4.40
44. Feedback from your body	0.09	4.40
45. Train at convenient times for your body	0.03	3.20
47. Training diary	0.04	4.00
81. Chart an annual plan	0.04	4.20
87. Devise a planning calendar	0.04	3.80
Cluster 3 Cognitive Roles		
54. Absorb yourself in the environment	0.50	3.20
70. Visualisation	0.41	4.80
76. Develop competition plans and tactics	0.46	4.60
71. Goal setting	0.27	5.00
72. Awareness of goals to be achieved	0.27	4.80
73. Reflect on your performance	0.35	5.00
75. Awareness	0.28	4.20
77. Know your strengths and weaknesses	0.29	5.00
78. Constantly thinking	0.35	4.40
Cluster 4 Visual Learning		
2. Videos of elite athletes	0.51	3.80
3. Videos of major international competitions	0.51	4.60
4. Video opposition	0.51	3.20
39. Listen to audiotapes	1.00	2.20

Cluster 5 Training Support		
24. Performance standard comparisons	0.70	4.60
88. Statistics	0.73	3.00
50. Observe and analyse opposition	0.61	3.40
48. Observe other elite athletes	0.46	3.80
86. Train with the best athletes possible	0.42	3.60
56. Train with other elite athletes	0.38	3.20
79. Train with athletes from other countries	0.44	3.00
Cluster 6 Technological Aids		
20. Sport science testing	0.21	3.40
22. Stopwatch	0.00	4.20
85. Testing the equipment	0.00	3.40
46. Having a good feel for your equipment	0.04	4.00
52. Having a good understanding	0.04	4.60
21. Electronic testing devices	0.18	3.80
30. Using computer technology	0.18	2.20
31. using CD roms	0.18	2.00
25. Heart rate monitors	0.41	3.20
83. Digital cameras	0.17	2.00
Cluster 7 Outside Feedback		
32. Using the Internet	0.93	2.60
65. Other coaches give feedback	0.81	2.80
55. Build a partnership	0.57	2.60
60. Have an advisor or mentor	0.12	3.60
64. Feedback from outside observer on technical aspects	0.12	3.40
66. Outside observer/advisor as a sounding board	0.12	3.20
62. Get feedback from a mentor or outside observer	0.12	3.20
58. Have a training partner	0.70	3.00
82. Build up a support team	0.64	4.20
61. Have an outside observer	0.22	3.20
63. Outside influence to offer feedback	0.22	2.80
Cluster 8 Athlete Information Sources		
5. Discussions with other elite athletes	0.16	3.00
16. Learn from more experienced athletes	0.16	3.80
26. Sport psychology	0.33	3.20
69. Sound off with training partner	0.26	2.60
9. Share knowledge with other athletes	0.33	2.40
11. Spend time with other elite athletes	0.27	3.20
19. Take different ideas from training camps	0.31	3.60
68. Attend training camps	0.35	3.80

Cluster 9 Other Information Sources		
8. Feedback from what other competitors are doing	0.42	3.40
10. Bounce ideas off another person	0.38	3.00
15. Seek advice from someone in another sport	0.38	2.80
12. Note what other sports do	0.11	3.20
36. Contact authors of resource books	0.11	2.20
37. Keep up to date on new information	0.11	4.00
33. Collect information	0.11	2.80
28. Reading books, magazines, and journals	0.25	3.20
38. Attend seminars	0.29	2.80
29. Watching documentaries	0.36	2.00
35. Read motivational books	0.35	3.20
Cluster 10 Expert Information Sources		
6. Ask questions of other elite athletes	0.20	3.00
13. Listen to other athlete's suggestions	0.20	3.00
17. Learn from role models	0.20	3.60
7. Talk to other elite athletes and take what works for you	0.20	3.60
18. Talk to coaches from around the world	0.20	3.60
34. Attend coaching seminars	0.20	3.00
14. Compare yourself to other elite athletes	0.41	3.80
74. Be aware of your competition	0.43	4.00
53. Understand the role of the coach to fulfil it yourself	0.42	4.40
Cluster 11 Experiential Learning		
23. Time standards comparisons	0.58	4.80
80. Learn from coaching experiences	0.58	4.00
67. Be open to ideas and change	0.48	4.20
42. Learn from your mistakes	0.53	4.60
27. Experimenting with new training methods	0.53	3.20
41. Trial and error	0.53	3.40

HILLARY COMMISSION –
HIGH PERFORMANCE AND INTERNATIONAL SPORT STATEMENT OF INTENT

HIGH PERFORMANCE AND INTERNATIONAL SPORT "New Zealand's elite athletes excelling in international sport"				
Outcomes	**Key Strategies**	**1999 / 2000 Outputs**	**Output Class**	**Milestone Targets**
2. New Zealand consistently records international success through elite athlete achievements	2.1 Contract NZSF to enable a one-stop shop for high performance sport	▪ Performance contract with New Zealand Sports Foundation to implement agreed funding support programme, manage the NZLGB Sports 2000 Fund, and provide grants for elite athletes. ▪ Specified high performance funding as set out in the NZSF Annual Plan	Contract NZSF	▪ Maintained or improved levels of performance of athletes receiving personal grants ▪ Results achieved by athletes demonstrate New Zealand is on track to achieve the best prepared and most successful Olympic Team. ▪ Maintained levels of corporate financial contribution

OUTCOMES	Key Strategies	1999 / 2000 Outputs	Output Class	Milestone Targets
2. New Zealand consistently records international success through elite athlete achievements. (cont).	2.2 Support for NGBs to provide excellent services to elite athletes.	▪ Performance contracts between NZSF and NGBs for elite programmes. ▪ Support and management of: - sport science and medicine programmes - Australia and NZ sport exchange - International travel - Paralympic sports.		▪ National organisations achieving 80% high performance targets as specified in coach academy plans. ▪ All programmes are conducted according to contract specifications. ▪ NZ sports achieving 80% of performance targets at key international events. ▪ New academy programme in place by January 2000.
	2.3 Personal grants for elite athletes and their coaches.	▪ Athlete and coach grants and support programme - support by the high performance unit of NZSF. Cost: **Grants & contracts $10.019m**		▪ More than 50 athletes ranked in the top 10, or better in the world. ▪ Win the Rugby World Cup and World Netball Championships ▪ Achieve top 10 placings in five other world championship events.

(The Hillary Commission, 1999a)

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APPENDIX 13

COACHING NEW ZEALAND COACHING COURSE MODIFICATIONS

The first course, Getting Started in Coaching, would be modified to include an introduction to self-coaching providing a definition of what self-coaching is and the reasons why athletes may self-coach. This would provide the course participants with a basic understanding of the overall concept.

Getting Started in Coaching Module:

- The Role of the Coach
- What is Formal Coaching
- **What is Self-coaching?**
- **Rational for Self-coaching?**
- Sport is for Everyone
- The Coach as a Communicator
- Skill Teaching and Learning
- Sport Safety
- Planning

The next course, Level One, would include a refresher of what was taught about self-coaching in the Getting Started in Coaching Module. As well, the characteristics/qualities of self-coached athletes and an introduction to the Self-Coaching Cycle would be included.

The Level One Module:

- The Role of the Coach
- **What is Self-coaching?**

- **Characteristics/Qualities of Self-coached Athletes**
- **Self-Coaching Cycle**
- Communication
- Growth and Development
- Mental Skills Training
- Physical Preparation
- Introduction to Skills Analysis
- Coaching a Skill
- Sport Safety
- Planning a Coaching Session

The Level Two Module would detail the Self-Coaching Cycle and introduce the steps a self-coached athlete could employ to enhance their success when self-coaching.

The Level Two Module:

- The Art of Coaching
- **Self-Coaching Cycle**
- **Self-coaching Steps**
- Anatomy of the Athlete
- Physical Preparation
- Sport Safety
- Introduction to Biomechanics
- Skill Acquisition
- Sport Psychology
- Sports Nutrition
- Coaching a Series of Sessions

In the Level Three Module, a more detailed explanation would be provided on the self-coaching steps and then the strategies to enhance self-coaching would be introduced and discussed.

The Level Three Module:

- The Art of Coaching
- **Self-coaching Steps**
- **Strategies for Self-coaching**
- Resistance Training and Physiological Testing
- Designing Sport Specific Training Programmes
- Planning and Periodisation
- Biomechanics
- Selecting a Team
- Injuries, Illness and Environmental Stress
- Sport Psychology
- Nutrition in Sport
- Leadership and Team Management
- Drugs in Sport

Day One of the CAD course would include an overview of self-coaching, the reasons why an athlete may self-coach and the characteristics/qualities required to self-coach.

Coaching Athletes with Disabilities Module:

Day One - General Principles

- Introduction to CNZ and Coaching Athletes with a Disability
- Understanding Disability
- Athletes with a Disability in Sport

- Opportunities
- Inclusion of People with a Disability in Sport
- Coaching Considerations for People with a Disability
- **What is Self-coaching?**
- **Rationale of Self-coaching**
- **Characteristics/Qualities of Self-coached Athletes**
- Classification and Rule Modification
- Physical Conditioning
- Safety and Medical Considerations
- Coaching Practice
- Athlete Panel

On Day Two of this course the Self-Coaching Cycle, steps to implement when designing a self-coaching programme and strategies to enhance self-coaching would be covered.

Day Two - Disability Specific Component ("XX" indicates the disability, i.e. wheelchair, intellectual, cerebral palsy)

- Athletes with "XX" and Sport
- Major Causes, Incidence Levels and Associated Conditions
- Integration
- Practical Session / Video presentation
- Coaching Strategies and Techniques
- **Self-Coaching Cycle**
- **Self-coaching Steps**
- **Strategies for Self-coaching**
- Coaching Practice
- Classification, Rule Modification and Structure of Sport for People with "XX" Disability
- Conditioning, Safety and Medical Conditions
- Coaching Practice

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