THE ATHLETE CAREER EDUCATION PROGRAM (ACE): THE USEFULNESS OF ACE SERVICES AND COUNSELLOR TRAINING

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ABSTRACT

The Athlete Career Education program (ACE), administered nationally by the Australian Institute of Sport, has as its objective to "assist elite athletes to undertake education, vocation and personal development opportunities whilst pursuing and achieving excellence in sport" (Australian Institute of Sport, 1999, p. 1). ACE offers a wide range of services including career and education guidance, sport performance-related programs, services designed to help athletes cope with elite sporting life, and services related to personal development. These services are provided through individual consultation with ACE advisors or through group training courses. The focus of the present research was to explore the usefulness of ACE services to athletes, the effectiveness of ACE-type interventions, and the helpfulness of ACE advisor training to advisors.

Study 1 involved the analysis of responses from 289 scholarship-holding athletes to a questionnaire about the use and usefulness of, and future interest in using ACE services. In addition, athletes provided responses to open-ended questions concerning the aspects of ACE services they considered were the most valuable, and the aspects that could be improved. Athletes reported using, on average, between 1 and 2 services or courses per year, although considerable variation existed in the use of services by athletes among the various State and Territory Institutes and Academies of Sport. Athletes rated most ACE services to be at least moderately useful, and interest in the future use of services was almost universal, with 99% of athletes expressing some interest in at least 1 service. Comments from athletes supported the findings that they valued both the career and education services, and the wider range of services related to issues in their lives. They also commented that the program appeared to be short of

resources, and that access to services, the promotion of the program, and the quality of individual follow-up were areas that could be improved.

A group of 34 under-18 Australian Rules footballers participated in the second study of the research program. The players completed 3 administrations of career and athletic identity self-report measures. These measures were the Career Decision Self-Efficacy Scale (Betz, Klein, & Taylor, 1996), the Career Decision Scale (Osipow, Carney, Winer, Yanico, & Koschier, 1976), the Occupational Alternatives Question (Zener & Schnuelle, 1976), and Athletic Identity Measurement Scale (Brewer & Cornelius, 2001). Between the first and second administrations of the measures half of the group (the intervention group) completed a careers workshop (including the Self-Directed Search [Holland, Shears, & Harvey-Beavis, 2001]) and individual one-to-one career counselling sessions. Players completed the third administration six weeks after the second. At the third administration, all players demonstrated a moderate increase in career decision self-efficacy, although members of the intervention group experienced a larger increase than those who did not complete the intervention. No changes occurred in the levels of career indecision or certainty, or athletic identity, and players did not increase the number of occupational alternatives they were considering as future careers. The results indicated that even limited interventions, such as the completion of a battery of career-related measures, are sufficient to stimulate positive change in the career decision self-efficacy beliefs of athletes.

In the third study, 35 graduates of ACE advisor training from Australia, Great Britain, and New Zealand responded to questionnaires about the usefulness of the advisor training program. The advisors gave high ratings for the usefulness of most subjects, but demonstrated a preference for practical subjects and teaching methods over theoretical and structural subjects and research-based learning methods. The majority of

advisors received substantial recognition of prior learning credit. Approximately 45% of subject credits were awarded through this process. Their comments indicated that advisors value both the recognition of prior learning and the life experience they bring with them into the training.

The research provided strong evidence for the usefulness of ACE services to athletes, and of their interest in using ACE services in the future. The general discussion contrasts the range of services offered by ACE with the preferences of the athletes, and with the specialist training of ACE advisors.

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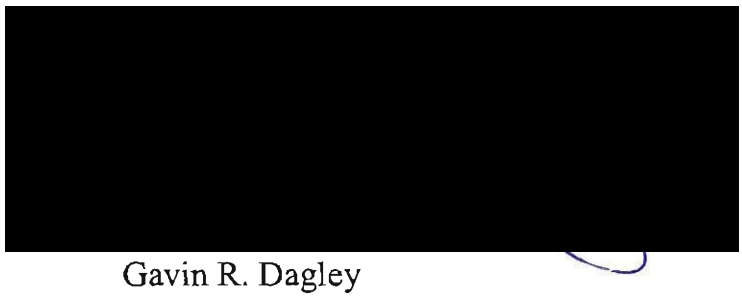
PREFACE

No part of this thesis, in any form, has been submitted for any degree, diploma, or other qualification at any University or College. To the best of my knowledge, none of the studies reported here have previously been carried out by any other investigator. All the research work was undertaken in the Faculty of Human Development at Victoria University, Melbourne, Australia. The author was supported by a Victoria University Postgraduate Research Scholarship.



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CHAPTER 1

LITERATURE REVIEW

Part 1: Elite Sport Retirement Research and Theories

There is mounting evidence that a significant number of athletes experience difficulties on retirement from elite sport. These difficulties include emotional, psychological, social, and financial problems (Blinde & Stratta, 1992; Grove, Lavallee, & Gordon, 1997; Sinclair & Orlick, 1993). Even researchers who have argued that the retirement process may be less traumatic than previously thought have found a consistent minority of athletes who experience problems (e.g., Allison & Meyer, 1988; Greendorfer & Blinde, 1985). The finding that some, but not all, athletes experience difficulties on retirement from elite sport is common in the literature.

A wide range of factors influence whether or not athletes experience difficulties on retirement. These factors include whether the athlete had control of the retirement decision (Taylor & Ogilvie, 1994), the suddenness and expectedness of the retirement event (Blinde & Stratta, 1992), the athlete's resources, personal qualities, and environment (Coakley, 1983), and the subjective appraisals of the threats and opportunities presented by the retirement process (Pearson & Petitpas, 1990). Researchers have developed a range of theories and models to describe and explain the retirement process. These theories and models include explanations of possible mechanisms operating during the retirement process, stage-based models (such as Kübler-Ross's [1969] stages of adjustment to death and dying), and predictive models that relate factors to outcomes for both generic and sport-specific transitions.

Irrespective of the explanations, retirement from elite sport results in distress or difficulties for approximately 20% of the elite athlete population (Grove, Lavallee, Gordon, & Harvey, 1998). That such a large proportion of a population experiences

event-related distress is a cause for concern. The following discussion presents an overview of research on the experience of elite sport retirement, and the theories and models researchers have offered to explain the phenomemon.

Incidence and Effects of Retirement Difficulties

During the past three decades, researchers have investigated the effects of sport retirement on elite athletes. One of the earliest researchers, Mihovilović (1968), reported on the retirement experiences of 44 elite Yugoslavian soccer players. Players, coaches, and managers answered survey and interview questions regarding players' sport retirement experiences and behaviours, environmental changes as a result of retirement, and ways in which retirement difficulties could be minimised. Mihovilović commented that, with regard to the experience of retirement, "Departing sportsmen feel neglected, lonely and helpless. This manifests itself in an excessive consumption of alcohol, intense smoking, neglect of personal hygiene and of physical fitness, etc." (p. 82). These comments may not, however, have represented the overall results of the study. Although a number of players and coaches reported players' experiencing negative feelings, and increased alcohol and tobacco consumption, the majority did not. Coakley (1983) commented on the apparent discrepancy between Mihovilović's study results and conclusions. "Contrary to Mihovilovic's conclusion, ... this seems to be an impressive adjustment record for athletes whose sport experiences had monopolized their attention for many years and had prevented most of them from completing their education or receiving job training" (Coakley, 1983, p. 5).

Coakley (1983) reviewed the literature available at that time on sport retirement and found that leaving elite sport does not necessarily lead to emotional and adjustment problems, and that some athletes may find retirement a positive experience. Coakley also distinguished the experiences of amateur and collegiate athletes from those of

professional athletes. He found that collegiate athletes experienced few difficulties at the end of their collegiate sport careers outside the role changes normally associated with early adulthood. The situation was less clear for amateur and professional athletes. Although Coakley found limited evidence for difficulties on retirement for these two athlete groups, the amount of available research was small. Coakley's analysis of the literature indicated that distress on retirement occurred most commonly when environmental conditions provided little in the way of post-sport support, and when the athletes had little in the way of non-sport specific credentials, skills, or relationships. That is, athletes had more difficult retirement experiences when they could not draw on resources such as networks of friends and families, and training and education for their post-sport careers. Coakley concluded that satisfactory transition from sport may be more effectively examined with reference to social structural factors such as age, race, gender, education, socioeconomic status, and social and emotional support systems.

Greendorfer and Blinde (1985) investigated Coakley's (1983) brief reference to retirement as a "process of transition" (p. 1). In their study of the exit from college sport of 1,123 former intercollegiate athletes, Greendorfer and Blinde examined aspects of sport role commitment, educational and occupational preparation, sport retirement adjustment, ongoing sport involvement, and social interests. They found that 75% of the retired athletes still participated in sport at some level, and 81% of men and 55% of women continued to follow their sports through the media. In addition, they found that the perceived importance of sport to athletes changed during their sport careers in relation to three developmental life stages: pre-high school, high school and early university, and late university, with the importance peaking at high school/early university age. The researchers interpreted these results as indications that the exit from

elite sport may be more accurately described as a process occurring over time than as a single event.

In relation to the sport retirement experience, Greendorfer and Blinde (1985) concluded that "there was little evidence to suggest [the] athletes experienced adjustment difficulties" (p. 101). Although the results indicated that the majority of athletes had not experienced trauma, disruption or severe difficulty, there was, once again, a minority who had found the opposite to be true. For example, when asked how happy they were with sport retirement, one-third of the athletes indicated they felt very or extremely unhappy. Likewise, although a majority of the study participants indicated that they were satisfied with themselves at the end of their intercollegiate sport careers, 17% of the group indicated some or extreme dissatisfaction.

This study provides an interesting contrast with Mihovilović (1968). Greendorfer and Blinde (1985) concluded athletes did not seem to have difficulties with sport retirement, and Mihovilović concluded that athletes did have trouble. Although the conclusions were very different (a point noted by Greendorfer & Blinde), the results were surprisingly similar. That is, although the majority of athletes in both studies did not experience major difficulties on retirement from sport, an significant minority did.

Sinclair and Orlick (1993) provided an example of the importance of understanding the variation and range of retirement experiences, rather than focusing on the average retirement experience. They developed the Athletic Retirement Questionnaire to investigate the reasons for retirement from sport, the coping strategies employed, and the factors that may have had an influence on the athlete's retirement adjustment process. Athletes indicated the extent to which they encountered the difficulties listed in the questionnaire. The highest rated difficulty for the athletes was that of missing the social aspect of sport, which, according to their scoring system,

presented as a "moderate" problem. Sinclair and Orlick commented, however, that 37% of the athletes indicated they had experienced fair to serious problems with the loss of the social aspect of sport. That is, although the average athlete did not have a major difficulty with the loss of social contact through sport, a large proportion did find the loss a big problem.

Grove et al. (1998) provided a summary of the prevalence of sport retirement difficulties reported in recent research. They listed 11 studies published between 1982 and 1997 that measured the level of distress in reaction to sport retirement. The studies covered a wide range of sports and included a variety of quantitative and qualitative research methods. Participants represented a cross-section of elite sport levels (Olympic, collegiate, professional, amateur). Nearly one in five of the 2,116 athletes included in the studies experienced some form of moderate or severe negative emotional reaction to their sport retirement. The percentages of distressful reactions in the various studies ranged from 6.8% to 85.7%. Examples of the distressful reactions included feelings of isolation and loss of identity, severe emotional problems, and general dissatisfaction with life.

Included in this summary were three studies that appeared to report an exception to this pattern (Allison & Meyer, 1988; Curtis & Ennis, 1988; and, the previously discussed, Greendorfer & Blinde, 1985). These researchers emphasised the lack of distress associated with sport retirement in their results. Each, however, provided evidence of some form of difficulty on retirement for their participants. Using a semistructured questionnaire, Allison and Meyer (1988) surveyed 20 retired female tennis professionals regarding their experiences of early and professional tennis, and their reasons for and reactions to retirement. They summarised their retirement findings by stating "In general, results indicated that the athletes did not find disengagement

from their competitive years traumatic, but rather found it as an opportunity to reestablish more traditional societal roles and lifestyles" (p. 212). The former players indicated their reactions by describing their first psychological/emotional response to retirement. Although 50% of the women indicated feelings of relief, 30% indicated feelings of loss of identity and isolation. The only discussion of the negative responses to retirement by the authors was a statement that some former players expressed frustration and anxiety.

Curtis and Ennis (1988) investigated the status and satisfaction of former elite Canadian ice hockey players compared to males in the general Canadian population, matched for age and province of residence. They reported no evidence of negative consequences of disengagement on the life satisfaction, employment status, and marital status of the players compared to the general population. Curtis and Ennis did, however, report that a majority of the former players (50.5%) found leaving hockey to be quite difficult, and that 14.6% felt quite a loss on retirement. That is, although the researchers found evidence of emotionally negative experiences related to retirement, they found no subsequent unfavourable differences on life satisfaction, unemployment rate, or marital status of the former hockey players compared to the general population.

These results contrast with a recent study of jockeys in the Australian racing industry. In one of the more extensive recent studies of elite sport retirement, Speed, Seedsman, Morris, and Sullivan (2001) found that jockeys experienced a range of difficulties related to retirement from riding. These included difficulties related to finance and employment, education, mental and physical health, and social contact and support. More than 60% of jockeys had experienced financial difficulties at sometime during their retirement, and many had serious ongoing concerns about their future financial circumstances and employment potential. These difficulties were sometimes

exacerbated by severely restricted employment options, frequently the result of limited education and employment experience. Their lack of prior education and limited job skills also had the effect of undermining their self-esteem and self-confidence.

The jockeys reported that retirement was stressful, and was associated with lowered self-perceptions, feelings of lack of direction or purpose, loss of personal identity and social networks, and a sense of being disconnected from, or forgotten by the racing industry. In addition, through changes in their social networks, some retired jockeys lost a sense of security and stability in their lives, and experienced feelings of reduced worth, competence, and belonging. Many jockeys experienced problems associated with injury and prolonged wasting. These difficulties included back problems, arthritis, other joint problems, and, in some cases, excessive weight gain. Finally, retired jockeys felt there was little, if any, formal recognition of the contribution they had made to the racing industry. Several jockeys experienced difficulties in maintaining social contacts within the racing industry, and were acutely aware of the loss.

In summary, research interest in elite sport career transitions has grown rapidly in the last decade (Wylleman, Alfermann, & Lavallee, 2004b). Over the last 30 years, researchers using both qualitative and quantitative methods have provided evidence of the retirement experiences of elite sport people. Despite the absence of longitudinal studies (all of the studies discussed to this point have been retrospective, which, in itself, is of some concern), the evidence seems sufficient to conclude that *some* athletes, on average 1 in 5, do experience difficulties on retirement from elite sport. These difficulties vary considerably among retirees and can include emotional, financial, employment-related, social, and physical components.

Factors Related to Retirement Difficulties

During the late 1980s and the 1990s research emerged regarding the factors that may influence the likelihood of retirement adjustment difficulties. One of the obvious distinguishing factors among retiring athletes is the level at which they were competing immediately before retirement. Ogilvie and Taylor (1993) and Taylor and Ogilvie (1994) argued that substantial research into high school- and university-level athlete transitions indicated little evidence of distress on athletic retirement for these populations. They argued that the majority of studies that have indicated traumatic transitions for athletes have been concerned with elite-amateur and professional athlete populations.

Transition from sport around the time of entering university may result in career exploration at a time when such an event would occur naturally (Baillie, 1993), and thereby minimise the impact of a withdrawal. Evidence from studies such as Blinde and Stratta (1992) and Blinde and Greendorfer (1985), however, has indicated that there is an important, and sometimes considerable, proportion of athlete retirees who encounter distress when leaving elite sport at university level. In Grove et al.'s (1998) summary of 11 sport retirement studies, a minimum of 15% of athletes in each of the four of the participant groups (Olympic, collegiate, professional, and amateur athletes) experienced distressful reactions on exiting their sport. Although some differences exist, it appears that group membership may not be particularly useful in understanding adaptation to sport retirement.

Tables 1a and 1b are schematic representations of the factors that researchers have discussed in relation to adaptation to sport retirement. The factors have been

Table 1a

Literature Identifying Factors Related to Experience of Sport Retirement - Individual Factors

Author(s)	Individual Factors										
	Age	Minority status	Gender	Social / socioec / marital status	Financial status	Value orientation	Education	Health	Post-sport alternatives	Self / social identity	Goal achieve-ment
Baillie (1993)										x	
Blinde & Stratta (1992)										x	x
Coakley (1983)	x	x	x	x			x				
Crook & Robertson (1991)										x	
Fortunato (1996)											x
Gordon (1995)				x				x	x	x	
Grove, Lavallee, & Gordon (1997)										x	
Hawkins, Blann, Zaichkowsky, & Kane (1994)	x	x	x		x						x
Kleiber & Brock (1992)										x	
Kleiber, Greendorfer, Blinde, & Samdahl (1987)											x
Koukouris (1991)				x			x				x
Murphy (1995)										x	
Ogilvie & Taylor (1993)	x	x		x	x			x	x	x	
Parker (1994)											x
Pearson & Petitpas (1990)							x		x	x	x
Schlossberg, Waters, & Goodman (1995)[a]	x	x	x	x		x		x	x		
Sinclair & Orlick (1993)											x
Taylor & Ogilvie (1994)	x	x	x	x	x			x	x	x	x
Werthner & Orlick (1983)					x						x

Notes: x Factor identified as related to retirement or transition experiences

[a] Discussion of generic (rather than sport specific) transitions

Table 1b

Literature Identifying Factors Related to Experience of Sport Retirement - Other Factors

Author(s)	Transition factors			Context Factors			Resource Factors				
	Choice/ cause	Transition charact'ics	Cognitive factors	Coach rel'ship/ influence	Envir'ment/ context	Post-transition envir'ment	Life/mental skills	Pre-retire planning	Social support	Material support	Previous experience
Blinde & Stratta (1992)	x	x				x					
Coakley (1983)							x		x	x	
Crook & Robertson (1991)	x							x	x		
Fortunato (1996)	x								x		
Gordon (1995)	x	x			x		x	x	x		
Grove, Lavallee, & Gordon (1997)							x				
Hawkins, Blann, Zaichkowsky, & Kane (1994)	x			x	x			x	x		
Kleiber & Brock (1992)	x										
Kleiber, Greendorfer, Blinde, & Samdahl (1987)	x										
Koukouris (1991)	x										
Lavallee, Grove, & Gordon (1997)	x										
Murphy (1995)	x						x	x	x		
Ogilvie & Taylor (1993)	x							x	x		
Parker (1994)	x			x	x						
Pearson & Petitpas (1990)	x	x	x		x		x	x	x	x	
Schlossberg, Waters, & Goodman (1995)[a]	x	x	x		x	x	x		x		x
Sinclair & Orlick (1993)	x						x	x			x
Taylor & Ogilvie (1994)	x						x	x	x		
Werthner & Orlick (1983)	x			x	x			x	x		

Notes: x Factor identified as related to retirement or transition experiences

[a] Discussion of generic (rather than sport specific) transitions

grouped under four headings: factors associated with the individual, with the retirement process (transition factors), with the athletes' sport careers and the context and environment of their sports, and with the resources the athletes may have developed or have available.

There appear to be strong inter-relationships between a number of factors related to athlete retirement. In addition, the distinctions between factor groups are not always clear cut. Age, for example, has been associated with the causes of athlete retirement (e.g., Taylor & Ogilvie, 1994). Coakley (1983), however, urged that research on sport retirement be analysed in terms of the "age, race, gender, education, and socioeconomic status of the retiring athlete" (p. 9). The implication appears to be that age may be an influential factor post-retirement irrespective of the causes of retirement. That is, the influence of age is not restricted to being a possible cause of retirement, but, as an attribute of the individual, may influence a range of retirement factors. For example, age may be related to the athlete's marital status, range of life experience, and financial commitments, whether or not the athlete is still living with parents, and the ease with which the athlete could undertake further study or training.

Another individual factor is the athlete's sense of identity (self or social), which frequently is associated strongly with sport. As shown in Table 1a, a number of reseachers have indicated that athlete identity is related to the experience of, and adjustment to, retirement. Brewer, Van Raalte, and Linder (1993), who developed the Athletic Identity Measurement Scale (AIMS), defined athletic identity "as the degree to which an individual identifies with the athlete role" (p. 237).

Researchers have provided general support for a positive relationship between the strength of athletic identity and affective responses to athletic injuries, and an inverse relationship with measures of career development (although these results are not

universal). Across four studies, Brewer (1993) found a consistent relationship between levels of depressed mood and athletic identity in injured athletes. Those injured athletes with strong and exclusive identification as athletes experienced higher levels of depressed mood than did athletes with weaker athletic identities. Researchers have also found that a strong athletic identity was associated with reduced career decision-making self-efficacy (Brown, Glastetter-Fender, & Shelton, 2000), and lower levels of career maturity (Murphy, Petitpas, & Brewer, 1996). Contrary to these latter results, however, Brown and Hartley (1998) concluded that the strength of athletic identity was unrelated to career maturity.

Athletes with strong athletic identities also appear to have higher levels of identity foreclosure. Petitpas (1978) defined identity foreclosure as the premature commitment to a particular occupational course without sufficient exploration of internal needs and values. For example, a young foreclosed football player with a strong identification to the athlete role might be expected to have a focus on a professional sporting career, to the exclusion of other possible career alternatives. Researchers have demonstrated that high levels of identity foreclosure are related to poorer career adjustment (Brown et al., 2000; Murphy et al., 1996).

The transition factor grouping includes all those elements related to the cause of retirement (e.g., age, injury, deselection), and perceived control. The transition factor also includes the characteristics of the transition itself and the athlete's subjective evaluation of the transition. Transition characteristics include the suddenness of the decision (Blinde & Stratta, 1992), whether or not retirement was anticipated or predictable (Pearson & Petitpas, 1990), the duration of the transition and the role changes required (Gordon, 1995), and whether or not the athlete attempted to retire previously (Sinclair & Orlick, 1993). For example, a sudden and unexpected deselection

from a team is likely to have a larger negative impact on an athlete than a planned retirement at the end of the season

The context grouping includes the influence that sport administration processes, structures, and decisions can have on retirement adjustment. Parker (1994) discussed the extent to which, in her interviews, former collegiate football players were preoccupied with recalling the coaches and athletic systems with which they were previously involved, and the perceived injustices they encountered. Werthner and Orlick (1986) described the bitter response of a 25-year-old Canadian athlete, who, having finished fourth at the Olympic Games, was subsequently dropped from the national team and lost his funding because he was considered too old.

The post-retirement environment is another context-related factor influencing retirement experience. Blinde and Stratta (1992) found that, where former athletes are reminded constantly of their previous involvement in sport, these reminders could exert an influence on adaptation to retirement. This influence may be positive or negative. Blinde and Stratta found that some collegiate athletes who had been cut from their teams, but had remained at university to complete their studies, found the constant reminder of their sports painful. In contrast, Mihovilović (1968) commented that club football players who voluntarily retired might find considerable enjoyment through ongoing involvement with the club in non-playing roles.

The resources factor includes a variety of personal skills that may or may not be acquired by athletes during their sporting careers, but which are thought to assist in the retirement adaptation process. These personal skills include coping skills (Gordon, 1995; Grove et al., 1997; Murphy, 1995; Sinclair & Orlick, 1993), those skills acquired through dealing with normal developmental tasks (Coakley, 1983), and general adaptation and social skills (Pearson & Petitpas, 1990). Examples might include goal

setting, conflict resolution, stress management, problem solving, social skills, skills to develop support networks, as well as education- and career-related skills. Pre-retirement planning includes all those activities that athletes can undertake to secure their future financial security, and to locate and pursue career, social, and recreational interests outside their competitive sports.

In summary, researchers have identified a broad range of factors that can influence the experience of elite sport retirement. These factors group under four headings: individual factors, transition factors, context factors, and available resources. This list of factors does not, however, provide an explanation for the mechanisms underlying the experience of retirement, or the relationships between the factors and the outcomes.

Theories and Models of Transitions

Social gerontological and thanatological theories. Rosenberg (1981) offered the earliest theoretical explanations regarding the effects on athletes of retirement from elite sport. Rosenberg considered the applicability to athletic retirement of social gerontological theories of retirement from the workforce. Rosenberg discussed the parallels and distinctions between sport and workforce retirement, and explored the idea that sport retirement be considered a form of workplace retirement. He examined the applicability of six gerontological theories of retirement in relation to sport retirement: disengagement theory, activity (or substitution) theory, subculture theory, continuity (or consolidation) theory, social breakdown theory, and exchange theory.

Cumming, Dean, Newell, and McCaffrey (1960) suggested that, according to disengagement theory, there is mutual withdrawal of the individual and society from social roles, to the mutual satisfaction of both. Cumming et al. (1960) constructed the theory based on the results of a longitudinal study of the social interaction of 211

residents of Kansas City, aged between 50 and 90 years. The mutual withdrawal of individuals and society provides opportunities for younger individuals to move up through organisational hierarchies. The retirees are expected to find satisfaction from the relief from workload and responsibility. Ebaugh (1988) found some support for disengagement theory in her study of the role exits of 185 people who had voluntarily exited a range of socially defined roles that were central to their self-identity. Ebaugh concluded that the mutual withdrawal was a result of the needs of the exiter to reduce commitment to the previous group and to commence establishing a new self-definition.

Rosenberg (1981) commented, however, that disengagement theory does not fit well with the situation of retiring athletes. Firstly, athletes do not always voluntarily retire from elite sport. Frequently, athletes are forced to withdraw through, for example, injury or deselection. Secondly, athletes rarely feel relief from the responsibility of work, as they are required to find an alternative money-earning career. Evidence from Lerch (1981) and Mihovilović (1968) has indicated that a number of athletes endeavour to maintain their sporting careers in spite of deteriorating ability. These results, in combination with evidence of the difficulty some athletes endure on retirement suggests that disengagement theory may only have limited applicability to sport retirement.

Activity, subculture, and continuity theories share a common theme (Rosenberg, 1981). According to these three theories, energies, previously directed at roles subsequently lost, are re-directed, either to new roles (activity theory), as limited by sub-cultural norms (subculture theory), or to remaining roles (continuity theory). An example of the re-direction of energy to other roles in sport retirement might be that athletes focus their efforts on building careers in broadcasting or business. Under activity theory, retirees maintain their overall level of activity by substituting lost roles with new ones. Rosenberg pointed out that the major criticism of this theory in

gerontological discussion is the lack of explanation of the voluntary reduction in overall activity amongst the retired. Rosenberg argued that such criticism does not usually apply in a sporting context, where overall levels of activity tend to be maintained. Subculture theory modifies activity theory by describing changes in overall activity that can occur as a result of the acceptance of sub-cultural norms. That is, an older person can be both less active and well-adjusted to retirement because such a reduction in overall activity fits with sub-cultural norms.

According to continuity theory (Atchley, 1989), people experiencing transitions will tend to make choices that preserve and maintain existing internal and external conditions. If the lost role is particularly important then the redirection of energies to existing roles may not be an entirely satisfactory alternative. Rosenberg (1981) predicted that, using continuity theory, the loss of an important role would result in a difficult transition. Continuity theory provides some explanation of attempts by some athletes to persist in important roles although they may be increasingly unable to do so.

Lerch (1981) investigated the applicability of continuity theory to sport retirement. He predicted that athletes who experience minimal changes in (previously positive) life patterns would have the easiest adjustment to retirement. Lerch examined the relationship between eight predictor variables, including three variables grounded in continuity theory, and life satisfaction for 511 ex-professional baseball players. The variables related to continuity theory were whether, in their post-baseball jobs, the players remained connected to sports, and maintained their sport commitment (albeit not as an elite player). The other variables were the athletes' education levels, current income levels, the positivity of their pre-retirement attitudes, their health status, the length of their baseball careers, and their professional baseball career performances. Lerch found positive relationships between current life satisfaction and income levels,

pre-retirement attitudes, health, education levels, and the connection of the present job to sports. (Income level and health status were the strongest predictors, with these factors explaining 12% of the variance in life satisfaction, and the remaining three factors explaining a further 3%). None of the variables were those Lerch had defined as related to continuity. (Initially, Lerch defined income as a continuity variable, but discussed it separately in his conclusions.) Lerch concluded that there was little support for continuity theory in his results, but also noted that this lack of support may have been the result of insufficiently sensitive measures.

Social breakdown theory (Kuypers & Bengston, 1973) is related to the effects of role loss on susceptibility to labeling, and the effects of such labeling. Role loss (from transitions such as retirement) can create social expectations of participation in activities based on an external label (e.g., retiree). If the person's social evaluation of such labels is negative, then there may be withdrawal from activities related to that label and a loss of the associated skills. That is, if a "retired athlete" associates that label with a lack of education or business skills, then that person may withdraw from such activities, and, thereby, make the belief a reality. Rosenberg (1981) commented that self-definition as an athlete may be sufficiently important to some athletes (i.e., those with strong athletic identities) that they become particularly susceptible to re-labeling on retirement.

Exchange theory (Dowd, 1975) has been used to describe the relationship between athletes and elite sport, rather than the factors associated with successful and unsuccessful transition. According to exchange theory, the relationship between athletes and elite sport is an exchange of value. While athletes have sought after talents they will be in demand. When those talents diminish, previously in-demand athletes will be discarded, and their ability to control their involvement in elite sports will diminish.

Rosenberg (1981) commented, however, that this harsh reality, if understood by athletes, may serve to prepare them for retirement.

Rosenberg (1981) considered that all of the social gerontological theories, with the exception of disengagement theory, were useful in understanding retirement from elite sport. He considered that the social breakdown and exchange theories were the most salient, and that social breakdown theory appeared to subsume the main features of activity, subculture, and continuity theories.

Thanatological theory has also been applied to athletic retirement. Rosenberg (1984) suggested that retirement from sport could be likened to social death (Kalish, 1966) – the situation where people are treated socially as if they were dead when they are biologically alive. Kalish defined social death by reference to the behaviours of the members of the group the person has recently left. Upon retirement from sport, athletes may become isolated from these groups because group members ignore them, as if they had died.

Kübler-Ross's (1969) five-stage model of adjustment to death and dying represents one example of transition as a process rather than an event. Blinde and Stratta (1992) found that a group of athletes, who experienced unexpected termination of their university sporting involvement, also experienced a process of adjustment similar to that described by Kübler-Ross. In interviews, the athletes frequently equated their feelings with death and dying. Blinde and Stratta found evidence for athletes experiencing each of Kübler-Ross' five stages: shock and denial, anger, bargaining, depression, and acceptance. Werthner and Orlick (1983) proposed an additional stage to the model, one of personal growth, but did not elaborate on the proposal. Blinde and Stratta did not allude to this proposed phase as a separate sixth stage. Within what they described as the acceptance phase (stage five), however, Blinde and Stratta discovered that many of

the athletes felt they were better able to cope with future adversity because of their experiences.

Hopson and Adams (1976) proposed a stage model of transitional experiences. The authors proposed seven stages of changes in mood (Hopson 1981) that occurred during the process of responding to transitions. Hopson (1981) later modified these stages to be immobilisation, elation or despair, minimisation, self-doubt, letting go, testing out, searching for meaning, and internalisation. Through the model, Hopson and Adams predicted that after the initial shock of a negative (or positive) event, a person's mood falls (or rises), but returns to around the pre-event level through the cognitive minimisation of the event. Due to the realisation of the need for change, the person then experiences self-doubt and a fall in mood toward depressed mood. Mood rises again through the processes of letting go, testing out the new environment, searching for meanings, and finally, internalising and incorporating the meanings into behavior. Although the model represents a generic pattern of responding to transitional events, it has obvious parallels with Kübler-Ross's (1969) stage model of adjustment to death and dying. The model also appears to incorporate an aspect of personal growth similar to that referred to by Werthner and Orlick (1983).

The application of social gerontological and thanatological theories to sport retirement has been discussed by a number of researchers (e.g., Baillie & Danish, 1992; Blinde & Greendorfer, 1985; Crook & Robertson, 1991; Drahota & Eitzen, 1998; Lavallee, 2000; Lerch, 1981; Ogilvie & Taylor, 1993). Most frequently, these authors discussed the limitations of applying these theories to sport retirement. Blinde and Greendorfer (1985) described two principal criticisms of the application of social gerontological and thanatological theory to sport retirement. They commented that these

theories describe only a narrow range of retirement experiences, and that they describe retirement as an event, when retirement should be considered a process of transition.

Lavallee (2000) summarised recent discussion of the application of social gerontological theory to sport retirement by commenting that such theories have been unable to capture the characteristics or complexities of the dynamic process of career transitions in sport. Lavallee raised four criticisms regarding social gerontological models of retirement when applied in the sporting context. Firstly, he highlighted the inaccuracy of the assumption that, universally, athletes are forced to leave sport. Secondly, in contrast to retirement under gerontological models, athletes will not retire from work, but will move to post-sporting careers. Thirdly, athletes generally retire from elite sport at a much younger age than those who retire from the workforce do. Finally, social gerontological models appear to incorporate an underlying assumption that the transition process is inherently negative. All but the third criticism could equally be applied to the application to sport retirement of thanatological models in relation to death.

Models and other stage-based theories. Ebaugh (1988) proposed that people who voluntarily exit socially defined roles that are important to their self-definitions, progress through a series of definable stages in the process of becoming what Ebaugh referred to as an "ex" (p. 1). Ebaugh interviewed 185 "exes" from a wide range of roles (e.g. ex-nuns, ex-wives, transsexuals) and concluded that the exit process had four stages: first doubts, seeking alternatives, the turning point, and creating the ex-role. Ebaugh also defined eleven properties of the role exit process: voluntariness, centrality of the role, reversibility, duration, degree of control, individual versus group exit, social desirability, degree of institutionalisation, degree of awareness, and sequentiality. For example, two women contemplating divorce may find the experience very different

based on the above properties. One may have chosen to act quickly due to a discovery of infidelity (i.e., sudden onset event and strong personal control). The second may have noticed that she and her husband were growing apart (longer duration), but was determined to maintain the marriage (reversibility), although her husband had asked for a divorce (lack of voluntary change).

Drahota and Eitzen (1998) completed in-depth interviews with 27 former professional athletes (from football, basketball, and skiing) and found that, with some modifications, Ebaugh's (1988) stage model of role exit was applicable to retirement from professional sport. Ebaugh's model was modified in three areas. Firstly, Drahota and Eitzen introduced a stage before "first doubts" to describe the doubts experienced by athletes prior to their entry into professional sport. They argued that, as most athletes enter professional sport voluntarily and exit involuntarily, they may experience doubts about their role on entry, but may not necessarily experience such doubts prior to the (sudden) decision to retire. For example, a footballer, in making the initial decision to play professionally, may have concerns about the future loss of his career through injury. These doubts are unlikely to be conscious immediately before such an injury event. Secondly, between "the turning point" and "creating the ex-role" Drahota and Eitzen introduced separate pathways in the model for athletes making voluntary and involuntary exits. They suggested that the process of moving from the turning point to the creation of the ex-role is different for those who experience involuntary exit and those who make a voluntary choice, due to a lack of time for preparation and adjustment prior to exit. Finally, they added "withdrawal" (in the context of withdrawal from an "addiction" to sport) to the list of items that make up the adjustment process that occurs as part of creating the ex-role.

Sport-specific retirement models developed by Gordon (1995) and Taylor and Ogilvie (1994) describe the relationships between the factors that influence adaptation to sport retirement and the quality of that adaptation. These models either incorporate or bear a strong conceptual resemblance to Schlossberg's generic model of human adaptation to transition (Schlossberg, 1981a, 1984; Schlossberg, Waters, & Goodman, 1995).

The three models (Gordon, 1995, Schlossberg et al., 1995, and Taylor & Ogilvie, 1994) share a common general structure. That is, where events or decisions result in an athlete commencing the process of retirement from sport, adaptation to retirement is influenced by three groups of factors, related to the individual athlete, the environment in which the transition occurs, and transition itself. The major differences between the models are the degree of sport-specificity of the model, the classification and extent of coverage of retirement adaptation factors, and the outcomes of the transition process.

Although not developed specifically for sport, Schlossberg's (1981a, 1984) generic model of human adaptation to transition has been applied to sport retirement (Crook & Robertson, 1991; Parker, 1994; Pearson & Petitpas, 1990; Swain, 1991). Schlossberg's model describes the transition process as resulting from the characteristics of the transition (event or non-event) and the available coping resources (both assets and liabilities). Schlossberg (1981a, 1984) grouped the retirement adaptation factors under three headings: transition characteristics, individual characteristics (including psychological and coping resources), and factors related to the environment (social support systems and options). Schlossberg et al. (1995) subsequently reclassified these factors under four headings; situation, self, support, and strategies (Figure 1).

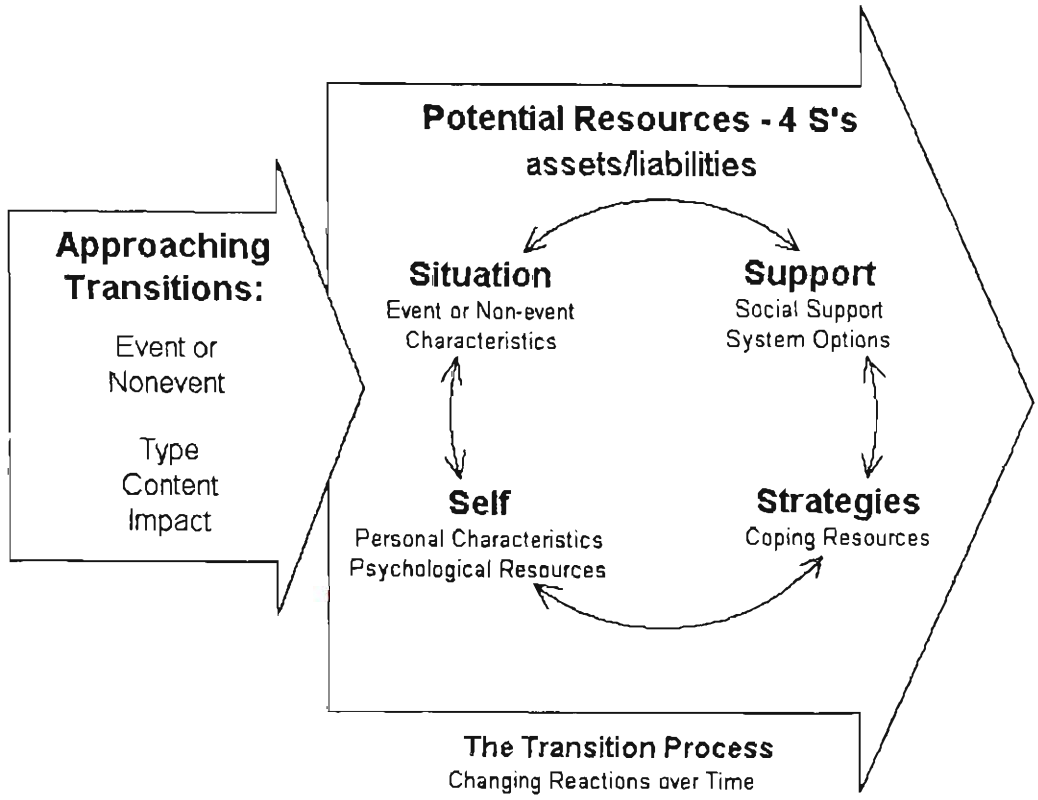

Figure 1. Schlossberg et al. (1995, p. 27) conceptual model of the individual in transition.

Schlossberg's model (Schlossberg, et al., 1995) includes most of the non-sport-specific retirement adaptation factors previously described in Table 1b. Those non-sport-specific items listed in Table 1b that received no or limited discussion in Schlossberg's model included financial and educational statuses, self- and social identity, available material support, and the extent of pre-transition preparation. On the basis of the research they reviewed, Crook and Robertson (1991) suggested that additional variables could be included in Schlossberg's (1984) model to improve its applicability to sport retirement. The additional factors were sport identity, self-esteem, confidence, locus of control, and anticipatory socialisation. Further sport-specific variables that might be usefully included are the influence of the coaching relationship

(Parker, 1994; Werthner & Orlick, 1986) and the extent of sporting goal achievement (e.g. Blinde & Stratta, 1992; Pearson & Petitpas, 1990; Werthner & Orlick, 1986).

Schlossberg (1984) drew a distinction between two types of transition characteristics. She distinguished between the characteristics of the event (or non-event) initiating the transition (the type, context, and impact of the event) and the characteristics of the transition process (e.g., timing, source, duration). Schlossberg (1984) characterised the elements of the transition process as assets or liabilities in the coping process. She argued that the characteristics of the transition process interact with the other (individual and environmental) coping resources as the indivudal addresses the adaptational demand. That is, the experience of transition is a complex interaction of factors related to the transition itself, and the coping resources available to the individual.

The largest change between the original 1981 version of the model and the latest iteration (Schlossberg et al., 1995) is the description and diagrammatic representation of the adaptation process. Schlossberg's (1981a) original model was criticised for the conceptualisation of the process of adaptation to transitions (Hopson, 1981). The term "adaptation" and the phases of assimilation have been removed entirely from the later models, and the transition process is now described in terms of changing reactions over time (Schlossberg et al., 1995). The model, which was previously described as a model of human adaptation to transition, is now simply described as "the individual in transition" (p. 27, Schlossberg et al., 1995). Schlossberg et al. included a number of stage models of adaptation in their description of the transition process (e.g., the previously discussed stage models of Ebaugh [1988] and Kübler-Ross [1969]), any of which may be applicable at different times. That is, Schlossberg et al. acknowledged

that adaptation to change occurs over time, and referred to other theories and models to describe this process.

Schlossberg's model (Schlossberg et al., 1995) provides a predictive structure regarding the ability of individuals to adapt to change at a point in time. Diagrammatically, the 1981 model indicated that adaptation was the outcome of the transition event, as mediated by the transition, environmental, and individual characteristics. As can be seen in Figure 1, the reference to adaptation, and indeed any outcome, has been removed. (Kidd [1998] argued for greater attention to be given to the roll of emotion in career development. Emotion may also be a neglected outcome element in the current transition models.)

Swain (1991) and Parker (1994) both provided some support for the applicability of Schlossberg's model to sport retirement transitions. Swain (1991) completed three in-depth interviews with each of 10 former elite athletes who had voluntarily retired from the sports of ice hockey, horse racing, American football, and racquetball. Swain found that the athletes experienced retirement as a process rather than an event. That is, changes brought about by the retirement event did not occur all at once, but required adjustment over time. Swain found further that the characteristics of the transitions and the coping resources available to the athletes influenced the retirement experiences. The participants also reported that, although the retirement was difficult and stressful, it was not unlike other difficult decisions they had had to make. Swain commented that there was a difference between his results and the emphasis in Schlossberg's model. Whereas for Schlossberg transition adaptation was future-focused, the participants in Swain's study appeared to be more concerned with assimilating and closing off their former sporting roles (similar to the role exit challenges described by

Ebaugh, 1988). Swain concluded, however, that the study supported Schlossberg's (1984) model.

Parker (1994) provided support for the interactional framework of Schlossberg's (1981a) earlier model. Parker completed in-depth interviews with seven former collegiate American footballers and found that unidimensional theories, such as the previously discussed thanatological and social gerontological theories, did not appear applicable. Parker considered that the range of responses to termination of collegiate eligibility was more adequately described by models that provided for variation in individual responses to transition, such as Schlossberg's model.

Gordon (1995) presented a sport retirement-specific adaptation of Schlossberg's (1984) model (Figure 2). The model provided three additions to the three groups of factors extracted from the Schlossberg's model: the inclusion of sport-specific causes of retirement, a separate list of tertiary mediating factors, and a link between the three groups of factors and intervention approaches. It is questionable whether this early attempt at improving Schlossberg's model for a sport context added any predictive or descriptive power to the earlier work. The causal factors could be argued as being included under Schlossberg's transition characteristics (specifically under the headings of voluntary versus involuntary retirement, the retirement trigger, and the type, context, and impact of the transition initiating event or non-event). Social support is specifically covered under Schlossberg's environmental characteristics, and the extent of coping resources and skills are the overall basis for Schlossberg's model. In addition, Gordon's predicted outcome of intervention, as implied from the structure of the model, would tend to be an exceptional outcome rather than a universal outcome. Finally, Gordon's model does not incorporate any elements indicating that adjustment to sport career

retirement is more than the retirement event itself. That is, Gordon's model does not include any reference to the transitions as a process that occurs over time.

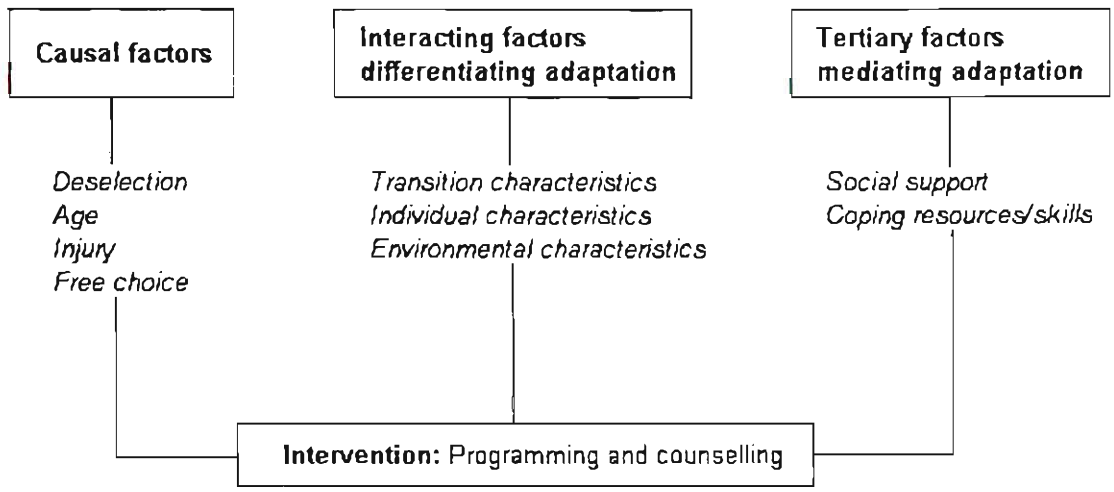

Figure 2. Gordon's (1995, p. 480) conceptual model of the career transition process in competitive sport.

Taylor and Ogilvie (1994, 2001) proposed a model of adaptation to sport retirement that was intended to offer a comprehensive and detailed characterisation of the process of athletic retirement. Taylor and Ogilvie's model, reproduced in Figure 3, contains the following five components, described as steps: (a) the causes of the career termination, (b) the intrapersonal, personal, social, and environmental factors that affect adaptation, (c) the resources available for coping with adaptation, (d) the quality of retirement adaptation, and (e) the interventions for athletes experiencing retirement difficulties.

The causes of retirement included in Taylor and Ogilvie's (1994) model are the same as those included in Gordon's (1995) model discussed previously, namely: age, deselection, injury, and free choice. The Taylor and Ogilvie model does not duplicate these factors in the way that Gordon's model appears to, and the four listed causes, and

the acknowledgement of other, less predominant causes (such as financial difficulties), represent the only discussion of the characteristics of the transition. The Taylor and Ogilvie model does not include transition characteristics such as the timing of the retirement (on- or off-time and good or bad timing), the extent of positive and negative role changes, the duration of the process, and the concurrent stresses in the athlete's life (Schlossberg, 1984).

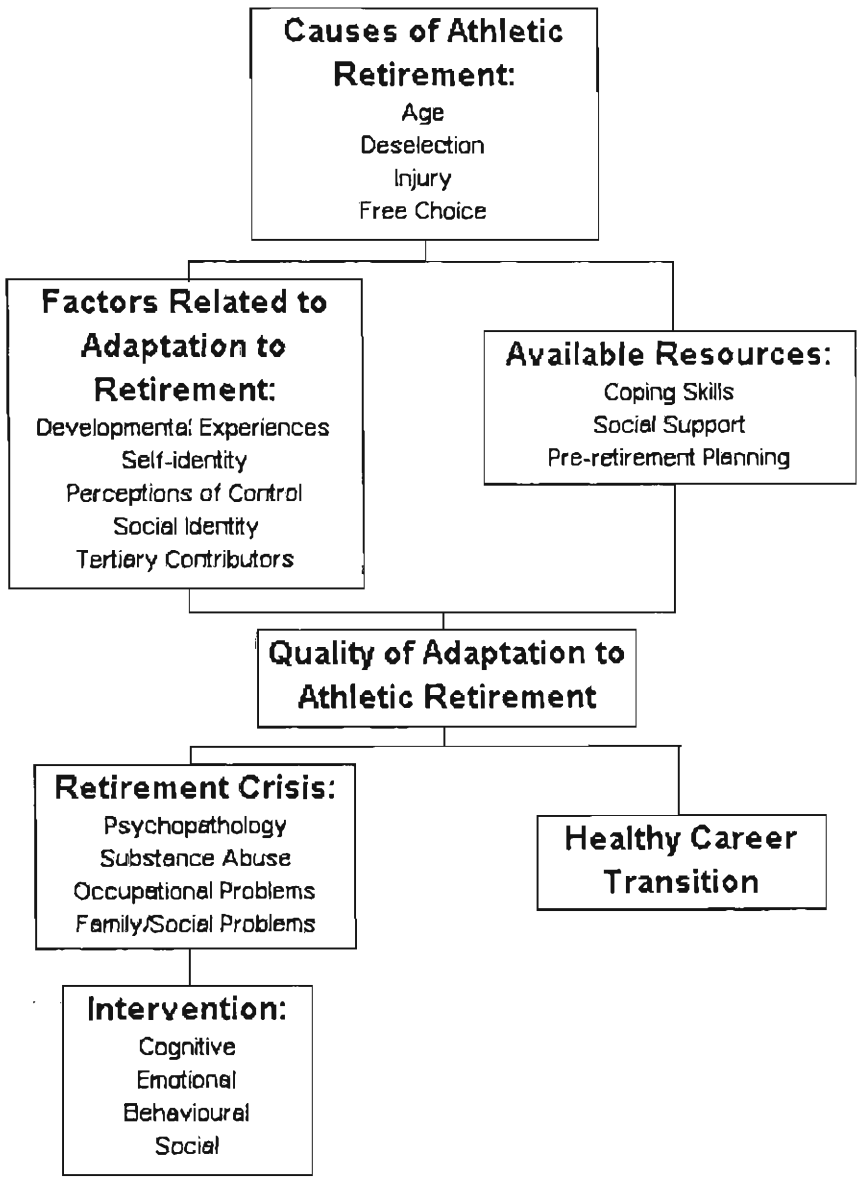

Figure 3. Taylor and Ogilvie (1994, p. 5) conceptual model of athlete adaptation to retirement.

Taylor and Ogilvie (1994) separated the remaining factors that influence adaptation to retirement into two groups: (a) available resources, and (b) factors related to adaptation, including self-perception and developmental experiences, and personal, social, and environmental factors. Of the factors listed in Tables 1a and 1b (schematic of factors) that are not related to retirement causes, the following have received little or no attention in the Taylor and Ogilvie model: educational status, value orientation, evaluation of the transition, the influence of the coaching relationship, retirement context factors (such as sport politics, and institutional influences), material support, the post-transition environment, and previous experience with similar transitions.

Taylor and Ogilvie (1994) introduced pre-retirement planning as one of the important coping resources that can influence an athlete's transition. They discussed not only the importance of the factor, but the resistance to such planning that researchers have found in athletes prior to their retirement. Taylor and Ogilvie observed that there has been little in the way of systematic investigation of the use of structured pre-retirement planning services offered to athletes, and no investigation of the effectiveness of these services (Taylor & Ogilvie, 2001).

Taylor and Ogilvie's (1994) model described the outcome of the transition process as the "quality of the adaptation to athletic retirement" (p. 12). The authors indicated that, as a result of differences in the contributing variables, athletes will undergo either "a healthy transition following retirement or experience distress in response to the end of their competitive career" (Taylor & Ogilvie, 2001, p. 490). This dichotomous interpretation of adjustment probably does not represent the range of responses to the retirement process. The acknowledgement of distress on retirement for some athletes does, however, facilitate the inclusion of a discussion of possible intervention approaches (the fifth step of the model).

Two omissions from the Taylor and Ogilvie (1994) model are discussions of (a) subjective appraisal, and (b) time in relation to the *process* of sport retirement. Schlossberg et al. (1995) suggested that an individual's appraisal of the process is central. That is, athletes' subjective appraisals of the threats and opportunities crystallised by the retirement event have a large bearing on how the athlete experiences the process. For example, two professional basketball players retiring voluntarily, and with similar resources, may view the event very differently. One may focus on the advantages of having more time available for family and friends, whereas the other may focus on the loss of the social network provided by her sport.

Schlossberg et al. (1995) incorporated Lazarus and Folkman's (1984) model of stress, appraisal, and coping in their transition model. Lazarus and Folkman's model described a transition as an encounter between an individual and the environment, in which the individual appraises the encounter as positive, stressful, or irrelevant (primary appraisal). If stressful, then further subjective evaluation determines whether it is perceived as a challenge, a threat, or a loss. Individuals engage in an appraisal of their ability to cope with the encounter by evaluating their available coping resources (secondary appraisal). The results of the secondary appraisal create a feedback loop as the perception of coping resources may alter the original appraisal of the encounter. For instance, an encounter may be perceived as potentially more threatening if the available resources were not perceived as adequate to deal with the situation.

Taylor and Ogilvie (1994) described their model as one that covers the complete course of athlete retirement. Although the model indicates the commencement (causes of retirement) and outcome points (retirement crisis or healthy transition), the intervening components represent a set of mediating and moderating factors rather than a sequence over time. Although Taylor and Ogilvie acknowledged the criticism of

previous models and theories as being insufficient in describing a process over time, their own model does not incorporate any components that indicate the occurrence of such a process. Schlossberg et al. (1995), however, in their summary of the premises of their transition framework described the process-based component in the following terms: "A transition has no endpoint; rather, a transition is a process over time that includes phases of assimilation and continuous appraisal as people move in, through, and out of it" (p. 46).

Discussion of theories and models of sport retirement. The models and theories discussed to this point do not represent a complete list of explanations that have been applied to sport retirement. Other examples (though by no means a complete list) include: the applicability of social awareness of death and dying (Lerch, 1981), life development and life cycle perspectives (Carp, 1972; Danish, 1981; McPherson, 1984), the account-making model (Grove et al., 1998; Harvey, Orbuch, & Weber, 1990), rituals of role completion (Kearl, 1989; Kleiber & Brock, 1992; Kleiber et al., 1987), identity foreclosure (Petitpas, 1978), athletic identity (Brewer et al., 1993), and Sussman's (1972) analytical model of retirement (Hill & Lowe, 1974). Additionally, Schlossberg and her colleagues (Schlossberg 1981a; Schlossberg et al., 1995) list and discuss a range of theoretical perspectives that have been considered in the construction of their transitional model.

The models that have been discussed to this point can be broadly grouped under three headings: explanatory theories (e.g., disengagement, social breakdown, social death), descriptive stage theories (e.g., Ebaugh, 1988; Kübler-Ross, 1969), and predictive models (e.g., Schlossberg et al., 1995; Taylor & Ogilvie, 1994). As Schlossberg et al. (1995) demonstrated, these groups of theories and models do not necessarily conflict, and may represent parts of a more substantial whole. For example,

Schlossberg et al. (1995) referred to Ebaugh's (1988) role exit theory as an appropriate model for some transitions, particularly in those situations that focus on voluntary exit from the old role. Whereas Ebaugh's model may be appropriate for those who experience voluntary role exits, Kübler-Ross' (1969) model may be more appropriate for those experiencing involuntary and distressful exits (e.g., Blinde & Stratta, 1992). Further, although Rosenberg (1981) concluded that disengagement theory was not appropriate for describing sport role exits, one of Rosenberg's underlying assumptions, that retirement from sport is necessarily stressful, may have masked the appropriateness of the theory to less stressful retirements. Ebaugh (1988) found some support for disengagement theory in her investigation of voluntary exits outside sport, and it is possible that for those athletes who experience relief on retirement (e.g., Allison & Meyer, 1988) disengagement theory may have some explanatory value.

The most comprehensive model of elite athlete retirement is likely to consist of an integration of these different types of theories and models, and may fit within more extensive life development and life cycle frameworks. In attempting to explain the changes that occur as a result of elite sport retirement, however, most of the writers indicated that adaptation to retirement is influenced by, among other things, the coping skills of the individual, and the preparation for retirement undertaken prior to transitioning from sport. The following section presents the literature related to interventions designed to assist athletes to prepare for and cope with retirement from elite sport.

Part 2: Career and Education Intervention Programs for Sport

A number of programs exist, and have existed in the past, designed to assist athletes to prepare for and cope with the transition from sport (for a list see Gordon, 1995). The following sections discuss the relationships between interventions and the models of sport retirement, the programs that have been, and are currently in existence, and the evaluation of these programs. The remainder of the chapter includes discussion of career intervention efficacy research, the structure and content of training for the Athlete Career Education program (ACE) advisors, and the current program of research. (Athlete Career Education program documents refer to the program as both "ACE" and "the ACE program". Within this thesis, the acronym "ACE" is used to refer to the program, rather than to athlete career education.)

Interventions and the Models of Elite Sport Retirement

Hopson and Adams (1976), in their discussion of the process of coping with transitions, distinguished between proactive and reactive strategies for addressing the adjustment demands and management of the strain of transitions. Such strategies included anticipatory socialisation (e.g., half-way houses, pre-transition meetings), development of support systems (e.g., social networks), and altering time-related perspectives (e.g., decision time frames). Hopson and Adams argued that pre-transition training could provide people with skills that help them cope more effectively with transitions.

Taylor and Ogilvie (1994) included both proactive and reactive intervention points in their model of adaptation to retirement. Firstly, where difficulties arise on retirement (specifically psychopathology, substance abuse, occupational problems, or family and social problems) then established psychotherapeutic interventions are indicated (i.e., reactive intervention). Taylor and Ogilvie also listed a range of factors

and resources that influence transitions, and that could be enhanced through proactive interventions. For example, learning additional coping skills (e.g., cognitive techniques such as goal-setting, problem-solving approaches), developing a network of social support (outside of sport, in particular), and engaging in pre-retirement planning (such as education, occupational and investment strategy development and implementation) should have a positive impact on the quality of adaptation. Interventions that assisted in such resource development could be implemented before the retirement decision is made, and, therefore, be effective as preventative (as well as remedial) interventions.

Schlossberg (1981a), in her original model of individual transitions, did not provide a link between the model and interventions that help people cope with the changes (Danish, 1981). In her published response to Danish's (1981) comments, Schlossberg (1981b) acknowledged the lack of discussion of the link, and argued for the utility of her model to counsellors and clients through the provision of a framework for understanding the effects of transitions. Specifically, Schlossberg argued that the model provided a structure that helped individuals to: (a) understand the factors that contributed to their difficulties, (b) understand their reactions to life events, and (c) gain a perspective on the events and processes that led to their difficulties. For example, an AFL footballer recently de-listed may have little understanding of the range of factors influencing his distress. Gaining a perspective on the pre-retirement factors of his exit from football, his personal support network, and his way of responding to stressors may help the player redirect energy to tasks and decisions that will aid his adaptation.

Schlossberg (1984) provided more concrete linkages between her model of transitions and interventions in her book "*Counseling Adults in Transition: Linking Practice with Theory.*" She proposed an integration of her transition model with Egan's (1975) process model of intervention counselling (described in Egan's book *"The*

Skilled Helper"). In the second edition of her book, rather than referring directly to Egan's work, Schlossberg et al. (1995) linked the framework provided by their model to specific intervention approaches. Those approaches were individual and group counselling (assisting the individual to cope), organisational consultation and program development (to improve the environment in which the transitions occur), and advocacy (to provide a voice for the client's rights).

The relationship between the Schlossberg et al. (1995) model and intervention approaches is, however, fundamental to the model. According to the model, the way in which people respond to transitions is based on the transition characteristics (the type of transition, context, and impact), the balance between their coping assets and liabilities, and their appraisals of the transitions. Interventions can influence both their coping assets and liabilities and their appraisals. That is, coping assets can be introduced or enhanced, coping liabilities can be reduced or removed, and appraisals can be reframed and reinterpreted.

The apparent neglect of educational, rather than purely remedial interventions, was one of the bases of Danish's (1981) criticism of Schlossberg's (1981a) model. That is, the improvement of coping resources does not need to wait until difficulties arise from transitions. Danish argued for the adoption of a life-span development approach to intervention, which emphases "the *enhancement* or *optimization* of development rather than *remediation* as the goal" (Danish, 1981, p. 42, emphasis original). Danish, Petitpas, and Hale (1992) argued that life development intervention (LDI) is an approach that is intended to teach life skills; generalisable skills that are designed to enhance personal competence in a variety of life domains (the central strategy of which is the goal setting). Danish et al. (1992) believed that development is sequential and is the result of

accumulating life skills and gaining a sense of competence through the successful management of critical life events.

Danish et al. (1992) argued that change is not necessarily either traumatic or negative. Change can be positive, or if negative, can be viewed as challenging rather than threatening. This position is supported to some extent by Lazarus and Folkman (1984), who argued that individuals appraise potential stressors as irrelevant, benign-positive, harmful or resulting in loss, threatening, or challenging. Given that Schlossberg et al. (1995) explicitly included the appraisals described by Lazarus and Folkman in their model, there may be less difference between a critical life event (in LDI terms) and a transition (in terms of the Schlossberg model) than has been argued.

The critical common element in the definitions of "transition events" appears to be the presence of circumstances that result in individuals coping with pressures to make changes they perceive as substantial or difficult. Examples include expected and unexpected circumstances, and relatively major and minor events, perceived as positive and/or negative, and which can occur rapidly, or take place over time. The essential element of a transition event is the requirement for *subjectively* substantial and/or difficult change. Examples of events that might commonly be classified as transition events include serious injury, retirement, the birth of a child, and the loss of a loved one. The following examples may also meet the definition of transition events, depending on the perceptions of the individual: the deselection of a teammate; a substantial sponsorship offer with associated promotional work; and selection to a more senior team.

There appear to be three intervention approaches that are employed in helping people in transition, and, in relation to the models of retirement that have been discussed, they can be distinguished in terms of timing. Interventions can occur before

the event/trigger point, or during the transition process. The LDI approach further sub-divides this latter group of interventions into supporting interventions ("during the event," Danish et al., 1992, p. 413), and counseling interventions that assist after the "event" has occurred (Danish et al., 1992).

Career, Education, and Life Skills Programs for Elite Athletes

Career, education, and life skills programs for athletes have existed for many years. Ogilvie and Howe (1983) reported an early example of such a program. In 1968, the management of the San Francisco 49ers (professional football) offered contracted players the opportunity to prepare for a career after football and acquire new skills for use in off-season employment through services initiated by the San Francisco 49er Career Planning Committee. The committee consisted of seven prominent San Francisco businessmen and a psychologist. They provided a referral service and offered counselling to players regarding their education, aptitudes, and goals. The team management considered that such a service would foster morale and stronger team identification, and would help players understand the reality of their time-limited professional careers. The program was credited with a number of successes, including the result that every player who used the services made a commitment to an off-season job or training program.

The program, however, did not last a full season. Despite pre-season promise, the team played badly in the early part of the year, and by mid-season the team was out of contention for the play-offs. Ogilvie and Howe (1983) reported that the head coach viewed the program offered by the Career Planning Committee as a distraction that reduced the athletes' commitment to winning, and forbade players to make appointments with the committee. The program was effectively terminated at that point.

More recently, Gordon (1995) listed 10 athlete career programs and services in operation in the United States, Canada, the United Kingdom, and Australia. Since that time a number of programs have terminated, or been amalgamated with other programs. For example, the Unites States-based Career Assistance Program for Athletes (CAPA), which commenced in 1988, is no longer in operation. In Australia, the three listed programs (ACE, the Lifeskills for Elite Athletes Program, and the Olympic Job Opportunity Program) have been amalgamated under the Athlete Career and Education program banner. (The Olympic Job Opportunity Program, a job search and placement service for elite athletes, has retained a separate identity within ACE structure, whereas the Lifeskills for Elite Athletes Program no longer exists, but is integrated into the aims of ACE.) Speed et al. (2001) listed three other organisations that offered career and education, and retirement support services operating within the football codes in Australia. These were the AFL Players' Association (AFLPA), the Rugby Union Players' Association (RUPA), and the Australian Professional Footballers' Association (PFA). The RUPA and the PFA work collaboratively with ACE to provide these services, whereas the AFLPA provide their services through three independent service providers. In addition to Australian programs, Anderson (1999) reported the existence of a range of career and education programs in professional football, hockey, and basketball programs in the United States, at the United States Olympic Education Center, and the French National Olympic Committee.

Assistance for athletes has not been restricted entirely to programs provided by professionals and sporting bodies. Petitpas, Champagne, Chartrand, Danish, and Murphy (1997) released a self-help book for athletes seeking information on how to plan their careers. Petitpas et al. (1997) provided information about career planning and development within the more general framework of coping with life planning and

transitions. The book provides athletes with a structure, information, and a range of exercises to help them understand the transition process, and to plan and implement a career path.

A number of United States-based universities now offer access to career and education services for athletes through the internet. Although the programs are offered, primarily, through dedicated student support offices, the websites provide an alternative method for athletes to browse the range of services and initiate contact. Examples include the Morgan Academic Support Center for Student-Athletes at Pennsylvania State University (http://www.mascsa.psu.edu/development.html), the USC Career Planning and Placement Center at University of Southern California (http://www.usc.edu/dept/athletics/saas/reference/life_skills/career.html), the Sacred Heart University Student-Athlete Academic Support Services (http://sacredheartpioneers.ocsn.com/school-bio/saht-academic-support.html), and CHAMPS Life Skills program at Texas Christian University (http://www.aaso.tcu.edu/LifeSkills/careerdev.asp). ACE is also accessible through the internet with information listed on the website for the Australian Institute of Sport, and the State and Territory Institutes and Academies of Sport.

The retirement assistance programs and services described in the literature appear to differ on six dimensions. The programs vary depending on the timing (in relation to retirement decisions), the focus and breadth of the interventions (e.g., resumé preparation through to holistic development of the athlete), the method of targeting (on two dimensions: the degree to which athletes can select the services they require, and whether or not there is any assessment of individual needs), the method of delivery (group versus individual), and the source of the intervention program (self-help,

provided by an athlete's employer, or provided by an organisation responsible for athlete welfare).

Programs vary widely within these dimensions. The now defunct CAPA program (Petitpas, Danish, McKelvain, & Murphy, 1992) is an example of a narrowly targeted program. The program, provided by the United States Olympic Committee, was delivered to competing, retiring, and recently retired athletes, and consisted of career development activities presented as a fixed-format one-day workshop. The workshop was delivered only to groups and, although athletes collectively indicated the topics in which they were interested, no individual needs assessments were completed. In contrast, ACE is based on a holistic perspective of athlete development. The Australian national and state academies and institutes of sport deliver ACE services, and these are available to athletes during their competitive careers, as well as during and after retirement from elite sport. The range of ACE services is broad and flexible (depending on the expressed needs of the athlete) and is based on individual athlete contact and assessment. Service delivery is by both group and individual modes. The focus of ACE interventions is not solely on sport retirement but includes assisting athletes to achieve a balance between their careers, education, and sporting objectives (Australian Institute of Sport, 1999).

The Athlete Career Education program. In 1990, the Victorian Institute of Sport (VIS) in Australia introduced the Athlete Career Education program (ACE). In 1995, ACE became a national program through its adoption by the Australian Institute of Sport (AIS), and the program now operates nationally through all the Australian Institutes and Academies of Sport (IASs). The program also operates in New Zealand (since 1999) and the United Kingdom (since 2000).

The manual for ACE (Australian Institute of Sport, 1999) describes the importance of the program, the primary objective and the strategies to achieve that objective, and the models and methods included in those strategies. The objective of ACE is "To provide nationally consistent services which will assist elite athletes to undertake education, vocation and personal development opportunities whilst pursuing and achieving excellence in sport" (Australian Institute of Sport, 1999; p. 1). The program helps athletes to achieve a balanced approach to sport participation through the provision of personal development training and career and education planning services, and helps them to prepare for their inevitable retirement from elite sport competition (Anderson, 1999). The program employs nine strategies to achieve these objectives and they are listed in Table 2.

The implication of such a holistic approach is that the benefits of using ACE services should accrue to the athlete during their competitive careers, as well as during the process of retirement from sport. This assumption was implicit in Anderson's (1999) study of non-retired athletes who used ACE services (discussed below).

The proactive role of ACE counsellors is to conduct an individual assessment for every IAS scholarship holder every year. The use of additional services is athlete-driven. That is, athletes access the further services available through ACE either through direct requests or because of needs identified in the annual assessment. Services are offered on an individual basis (including referrals, assessments, and counselling services) and for groups of athletes in the form of training programs.

Table 2

ACE Strategies

1. Individual Athlete Assessment
   Provide a structured process in which to assess individual athletes' educational, vocational, financial and personal development needs.

2. Personal Development Training Courses
   Provide elite athletes with competency based personal development training courses.

3. Nationally Consistent Career and Education Planning
   Utilise a nationally consistent career and education process to enable elite athletes to manage their own individual vocational requirements.

4. Business, Education and Community Support
   Foster support and opportunities for elite athletes within the business and education sectors, and the local community.

5. Transition Program
   Provide career and education guidance for elite athletes who are undergoing any transition process.

6. Program Development
   Develop and enhance the ACE program, and its personnel, through research into, and implementation of, cutting edge practices in athlete career and education

7. Program Integration
   Foster the integration of ACE Program personnel and services within the ongoing programs offered by the Australian Institute of Sport, State Institutes and Academies of Sport

8. Direct Athlete Needs Based Assessment
   Provide a structured process to assess athletes' eligibility for Direct Athlete Support (DAS) needs based support.

9. Professional Sports
   Provide a nationally consistent and co-ordinated athlete career and education program for professional sports.

(Australian Institute of Sport, 2000)

Intervention Program Evaluation Research

Although evidence exists for a beneficial relationship between preparation and the experience of career transitions (e.g., Perna, Ahlgren, & Zaichkowsky, 1999), there are few studies of the effects of career interventions with athletes. Researchers have evaluated athlete career, education, and life skills programs in four studies; one of the United States-based CAPA program (Petitpas et al., 1992), two of the Australian Athlete Career Education program (Anderson, 1999; Gorely, Lavallee, Bruce, Teale, & Lavallee, 2001), and a career intervention study conducted with youth cricketers (Bobridge, Gordon, Walker, & Thompson, 2003). Petitpas et al. described and reported on the development and evaluation of the CAPA program, an initiative funded by a grant from the United States Olympic Foundation. The researchers developed the content of the CAPA program from a survey of 1,800 athletes who were members of the Olympic and Pan-American Games teams between 1980 and 1988. The 531 respondents indicated whether they were interested in attending a career assistance workshop, and their preferences from a list of 20 possible workshop topics (Petitpas et al., 1992).

The program consisted of a series of eight one-day workshops held in major cities throughout the United States. Two counseling psychologists and an athlete who had made a successful retirement from elite sport acted as the workshop presenters. The foci of the workshop topics were "(a) managing the emotional and social impact of transitions, (b) increasing the understanding and awareness of personal qualities relevant to coping with transitions and career development, and (c) introducing information about the world of work" (pp. 383-384, Petitpas et al., 1992).

The CAPA program was evaluated by the attendees (Petitpas et al., 1992). Nearly all of the athletes (98%) indicated they were satisfied or very satisfied with the workshop, and that they would recommend it to other athletes. The athletes indicated

that the small-group discussions were the most valuable part of the workshop, and that the presentation on transferable skills was the most useful of the content sections. A number of athletes (15%) indicated, in the form of general comments, that the workshop presented more information than could be digested in a single day.

Studies by Anderson (1999) and Gorely et al. (2001) are of particular interest. They represent the only published research on ACE to date and are discussed below in some detail. Anderson (1999) completed the only research on the effects of ACE interventions on athletes. Anderson measured the effect of ACE participation on the athletic performance, mood states, self-concept, and well-being of a small group of elite Victorian athletes. Of the original 30 participants, 15 athletes withdrew from the study for various reasons (including retirement, relocation, and injury). A further seven athletes dropped out of participation in the program within the first three months, but completed the various study measures for the full 12 months. Anderson compared the data supplied by these seven athletes to the data supplied by the eight remaining athletes (who undertook ACE for the full 12 months).

The 15 athletes remaining in the study provided measures of athletic performance, mood states, self-concept, and well-being over the 12 months of the study. Self-concept and well-being were measured monthly, athletic performance was assessed every 14 days, and mood was measured weekly. Anderson (1999) used established measures for self-concept (the Self-Description Questionnaire III; Marsh & O'Neill, 1984) and mood (the Profile of Mood States; McNair, Lorr, & Droppleman, 1971), and used measures for psychological well-being, and athletic performance constructed by Anderson for the study.

The well-being measure consisted of four statements related to life in general, and eight statements related to the participant's feelings at the time of completing the

measure. Participants indicated the extent to which they agreed or disagreed with each of the 12 statements by circling a number between 1 (indicating strong agreement) and 5 (indicating strong disagreement).

Anderson (1999) measured athletic performance using subjective evaluation by both the athletes and their coaches. The measure consisted of four scales that assessed the athletes' performances in competition and in training. The respondents marked their assessments of the athletes' performance over the preceding four weeks on a continuous scale, anchored at one end as ineffective and at the other end as effective. The scales did not use any intermediate descriptors.

Anderson (1999) concluded that the athletes who completed the full year in ACE benefited from that participation. She concluded that these athletes demonstrated a decrease in negative mood states, more successful competition results, better matching of coaches' and athletes' performance ratings, and demonstrated a trend for high levels of well-being. Interpretation of her results, however, should be undertaken with caution due to problems with the study design and data analysis. Firstly, the study did not use a randomly allocated control group. The comparison group in her study was made up of those who dropped out of ACE. This group showed systematic differences to those who completed the program, but this means that the reasons for any differences between the two groups may not be the result of completion of ACE. Secondly, analysis of much of the data was a subjective exercise. That is, Anderson drew her conclusions on the relationships between ACE participation and mood and athletic performance based on her subjective interpretation of visual displays of the data. Given the huge volume of graphs, and a lack of information regarding the method of comparison, interpretation of her conclusions was difficult. Finally, the study contained no measures related to career and education variables, one of the primary focus areas of ACE interventions.

Gorely et al. (2001) evaluated the content, quality, access, and delivery of ACE services through the circulation, in 1997, of a 5-page questionnaire to all 3088 Australian athletes who were eligible to use ACE services. In addition to demographic information, participants provided information regarding their awareness of ACE general services, the sources used by athletes to obtain information regarding the program, descriptions of their coaches' attitudes to the program, the extent of their use of the program, and a rating of their satisfaction with each of ACE services they have used. Participants indicated which factors led them to using ACE services, and which factors limited their access to the services. Participants indicated a rating of the perceived personal importance of each of a predefined list of life areas, both at the present time and in the future. Participants also provided ratings of how well they felt the program was meeting their needs, and how interested they were in finding out more about and making use of the program. Finally, they provided ratings of their satisfaction with their access to ACE services, the usefulness of the information provided by ACE, the quality and delivery of the program, and the program overall.

Although the response rate was only 28%, the results indicated a high general awareness of ACE, and a perception of positive outcomes resulting from participation in the program. Gorely et al. (2001) reported that 29% of the athletes who responded to the questionnaire indicated that they had had no contact with ACE personnel in the preceding 12 months, and only 43% reported having had their annual interview with ACE staff. The implication from these results is that, at that time, the majority of athletes had used ACE services in some form, although roughly half were not completing the annual assessment.

Of the 867 respondents, 745 athletes (86%) indicated the level of their overall satisfaction with the program. Most of the 745 athletes (88%) indicated at least

moderate overall satisfaction with ACE services, and almost one quarter indicated they were very satisfied. Gorely et al. also measured satisfaction for the four variables under consideration – the accessibility, usefulness, quality, and delivery of the program. Between 737 and 792 participants responded to these questions. With the exception of accessibility, at least 80% of athletes were at least moderately satisfied with each of these features. Athletes were less satisfied with accessibility, with 27% indicating less than moderate satisfaction, 13% of whom reported they were not satisfied.

In response to a question asking participants to rate how well the program was meeting their current needs, a majority (76%) indicated that the program was meeting their needs at least moderately well. A large remainder of participants (24%), however, indicated the program was not meeting their needs satisfactorily. The research did not provide details of why these athletes felt ACE was not meeting their needs, or what aspects of ACE services they felt could have been improved.

Regarding the future interest of the athletes in ACE, 85% of the athletes reported being moderately or very interested in receiving information about ACE, and 90% indicated they would be at least moderately interested in making use of the program in the future.

Other findings included a summary of the athletes' perceptions of the relative importance of areas of their lives (from a list of 23 areas), at that time and in the future. "Family" and "sporting career" were the top ranked areas in both lists. In order, the top four "present" life areas were sporting career, family, education, and motivation. The four most important future life areas were family, sporting career, finding or establishing a job, and non-sporting career. Interestingly, the item "retirement issues" was last on the list of present important life areas, and a lowly 15th on the list of future important areas.

Gorely et al. (2001) provided a broad range of suggestions for improvements to the personnel, information, and services of the program. Suggestions included increasing the quality and quantity of individualised services, becoming pro-active in initiating contact with athletes, increasing efforts to improve athlete awareness of ACE services, and increasing the accessibility of the services.

Bobridge et al. (2003) conducted a 7-session career assistance program with 20 15 to 16 year-old Australian cricketers, with a further 11 cricketers formed a no-intervention control group. Bobridge et al. analysed measures of athletic identity, identity foreclosure, and career thoughts by using multiple 2 (time) x 2 (treatment) analyses of variance, rather than using gain scores or analyses of covariance recommended by Huck and McLean (1975). Although the players provided positive feedback on the program, Bobridge et al. found no main or interaction effects for athletic identity (using the Athletic Identity Measurement Scale; Brewer, Van Raalte, & Linder, 1993), identity foreclosure (using 6 items from the Objective Measure of Ego Identity Status Scale; Adams, Shea & Fitch, 1979), or the total scale or the commitment anxiety subscale for career thoughts (using the Career Thoughts Inventory; Sampson, Peterson, Lenz, Reardon, & Saunders, 1996). Bobridge et al. did not report effect sizes for these "no change" results.

They did find, however, main and interaction effects for the "external conflict" subscale (balancing the conflict between self-perceptions and external career information), and an interaction effect for the "decision-making confusion" subscale of the career thoughts measure. Analysis of the interaction effects indicated that the career assistance program, rather than increasing small pre-test differences between the player-groups, reduced or eliminated the substantial pre-test differences between the two groups.

Bobridge et al. (2003) concluded that their research design may not have been sufficiently sensitive to effect or measure changes in self-identity. The results from the career thoughts subscales indicated that, although self-reports of decision confusion and conflicting perceptions had changed, the explanation for such changes was not well understood.

Non-Sport Career Intervention Research

Although there is little research into career interventions for athletes, research into career counseling (Arbona, 2000; Herr, 2001) and the efficacy of career interventions with the general population (Whiston, Sexton, & Lasoff, 1998) has been extensive. The outcomes of this research, and the tools and methods employed, provided useful information for the design of the present research program. The following section consists of an overview of career intervention research, followed by some detailed discussion of studies that have used interventions and outcome measures similar to those employed in the current program.

Career intervention efficacy. Oliver and Spokane (1988) conducted a meta-analysis of 58 career intervention studies undertaken between 1950 and 1982 involving 7,311 participants. They considered that "career counseling has generally been shown to have positive effects, and the question of whether career counseling works is no longer asked" (p. 447). Overall, they found a positive and moderate overall effect, weighted for sample size, across all measures and all studies (delta = .48). (Delta is similar to Cohen's *d* except that it uses, as the denominator, the control group standard deviation rather than the pooled standard deviation.)

In addition to an overall evaluation of the efficacy of career interventions, Oliver and Spokane (1988) explored the relationship between particular intervention characteristics and outcomes. They calculated the unweighted intervention effect sizes

for a range of study characteristics, and the results, in respect of characteristics relevant to the current research program, are presented in Table 3. With the exception of single session interventions (which produced a small to moderate effect size), studies under each of these headings produced, on average, large effects. That is, interventions with characteristics similar to those used in the present program of research resulted in substantial positive career-related changes for participants.

Discussing the interaction between the number of sessions and treatment type (individual counselling, group counselling, workshops, class-based, or counsellor-free), Oliver and Spokane (1988) observed that individual counselling achieved greater positive change per hour of service delivery than group counselling or workshops and structured groups. They commented, however, that workshops and structured groups achieved a larger effect per *counsellor* hour. That is, although individual participants gained more from individual sessions than from group work, group sessions were more efficient in terms of counsellor hours. Furthermore, these two variables (treatment type and number of sessions) were the strongest predictors of the effectiveness of the interventions.

In addition to discussing the characteristics of the most effective interventions, Oliver and Spokane (1988) discussed the outcome variables that were affected by the interventions. These variables included increases in career decision-making certainty or decidedness, and the number of career choice options, variables measured in the intervention study of the current research. These results indicated that only small to moderate changes occurred in these variables as a result of career interventions. Outcome variables that demonstrated large positive changes were the accuracy of self-knowledge, decision-making skills, career-related knowledge, job-seeking skills, career maturity, and perceived control. Oliver and Spokane did not report effect sizes for

changes in career decision self-efficacy. Although the magnitude of the effects varied considerably, their results indicated that career interventions seemed to produce consistent substantial career-related benefits for participants.

Table 3

Comparison of Effect Sizes for Career Intervention Characteristics in Oliver and Spokane (1988) and Whiston, Sexton, and Lasoff (1998) Meta-Analyses

Study Characteristic	Oliver and Spokane (1988)	Whiston et al. (1998)	
	Δ [a]	Δ [a]	d [b]
Overall	.82	.45	.30
Single-session interventions	.31	.61	.29
Double-session interventions	.85	.44	.42
Individual counselling	.74	1.08	.75
Group workshops	.75	.36	.22
Counsellor-in-training	.83	.81	.51
Solicited participants	.74	.37	.20
High school-age participants	1.02	.31	.34
Outcome variables:			
Career certainty/decidedness	.40	.38	.19
Career decision self-efficacy	Not reported	.99	.96
Career choice options	.20	.58	.43

Notes: [a] mean unweighted delta effect size (mean difference / control group standard deviation)
[b] mean Cohen's *d* effect size weighted for sample size

More recently, Whiston et al. (1998) replicated and extended the work of Oliver and Spokane (1988) and concluded that effect sizes, though smaller, were similar to previous findings. Whiston et al. included 47 studies between 1983 and 1995 involving 4,660 participants. Table 3 provides a comparison of the mean effect sizes found by Whiston et al. (1998) and Oliver and Spokane (1988). Baker and Taylor (1998) also

completed a more narrowly focused meta-analysis of career education studies conducted with children high school age and younger. Their study results indicated that the interventions also produced moderate positive changes for participants.

One of the principal weaknesses of the body research on career intervention efficacy is the reliance on self-report pencil-and-paper inventories as outcome measures, rather than behavioural measures that indicate the extent of real changes in people's lives (Sechrest, McKnight, & McKnight, 1996). Whiston et al. (1998) reported on only two behavioural measures, career-information seeking, and securing a job or the probability of hire (a total of 10 studies). The effect sizes from these studies, however, supported the overall efficacy of career interventions with mean effect sizes of between delta = .69 and .73.

The findings of these three meta-analyses provide sufficient data to draw some conclusions. First, many participants benefit from career interventions. Although Table 3 displays large variations between results, the effects are uniformly positive. Second, double-session interventions appear to generate larger gains for participants than single session interventions. Third, individual counselling appears to generate larger effects than group workshops. Fourth, inexperienced counsellors appear well able to deliver effective career interventions. Finally, career interventions appear consistently to influence three of the variables used in the present research: career certainty/decidedness, career choice options, and career decision self-efficacy.

Intervention tools and measures. In career-intervention research, there is a large range of intervention tools and measured outcome variables. Findings indicate that the Self-Directed Search (Holland, Shears, & Harvey-Beavis, 2001) and similar tools influence a range of career-related variables including the number of options being considered, career indecision and certainty, and career self-efficacy. In addition,

participants in control groups have consistently demonstrated that the completion of career-related outcome measures can exert a positive influence on career-related cognitions. The following discussion highlights and details studies that used tools, methods, or measures also used in the current research.

One of the common tools in career interventions is the Self-Directed Search (SDS, Holland et al., 2001). Since its introduction in 1971 (Shears & Harvey-Beavis, 2001), over 22 million people have used the SDS and it has been translated into more than 25 languages (Rayman & Atanasoff, 1999). Rayman and Atanasoff (1999) discussed the research findings in support of the efficacy and utility of the SDS. They concluded that the SDS influences a number of outcomes including career decision-making, the number of vocational options that people consider, satisfaction and certainty with vocational plans, and vocational information seeking.

Among the studies that have provided support for the efficacy of the SDS as a vocational intervention are Talbot and Birk (1979), Zener and Schnuelle (1976), and McGowan (1977). In these studies, completing the SDS resulted in increased numbers of career alternatives participants were considering (Talbot & Birk, 1979; Zener & Schnuelle, 1976), and assistance for participants to make career choices (McGowan, 1977).

Talbot and Birk (1979) allocated 103 career-uncertain undergraduate women to one of three counsellor-free intervention groups (one of which used the SDS) or to a control group. The researchers found that completing the SDS resulted in participants considering, on average, 4.7 career alternatives compared to the control group who were considering only 3.6 alternatives ($d = .68$). In an earlier study, Zener and Schnuelle (1976) reported similar findings to Talbot and Birk; that study participants who completed the SDS reported considering a larger number of occupational alternatives

(.45 more on means of 3.0 to 3.7) than did those in the control group who did not complete the SDS. Zener and Schnuelle found that this difference existed immediately after the SDS intervention, and at the follow-up testing three weeks later. An issue with these outcomes is whether the sizes of changes in the number of career alternatives are meaningful. If participants who were previously considering three options are now considering four then the interventions are apparently having *an* effect. Interpretation as to meaningfulness must necessarily be led by calibration of these results against behavioural measures, such as an increase in information-seeking behaviours.

McGowan (1977) found that the SDS helped career-undecided high school students make career choices. Compared to the students in the control group, more of the students in the intervention group (who completed the SDS) arrived at a career choice. McGowan also found that the completion of career decision measures can be sufficient to influence career decidedness. Approximately 20% of the control group members (who had *not* made a career decision and who did *not* complete the SDS) were able to reach a decision simply as a result of completing the career measures.

McNeill (1990) reported a similar finding (i.e., that participants can benefit from simply participating in the control group of careers studies). McNeill investigated the differential influence of problem solving training and a self-directed intervention (using the SDS) on career certainty and indecision, and career decision self-efficacy (measures used in the current research) with second-year university students. McNeill found that *all* study participants (including those in the control group) demonstrated moderate to very large increases in career decision self-efficacy (d = .47 to 1.79) and career certainty (d = .95 to 1.10) and reductions in career indecision (d = -.33 to -.56). Additionally, McNeill's results indicated that, except for self-efficacy in the problem-solving group, there was no differential effectiveness between the three groups. The problem-solving

group demonstrated a very large increase in career decision self-efficacy compared to the moderate to large increases in the SDS and control groups.

Fukuyama, Probert, Neimeyer, Nevill, and Metzler (1988), and Kraus and Hughey (1999) found relationships between other effective career interventions and reductions in career indecision and career decision self-efficacy. Fukuyama et al. measured changes in career decision self-efficacy and career indecision of undergraduate students who used a computer-based careers intervention (DISCOVER, based on Holland's theory of career development [Rayman and Atanasoff, 1999]) on undergraduate students ($N = 77$). The DISCOVER program provided self-assessment tools in the areas of interests, values, and abilities, and provided access to occupational information pertaining to over 400 occupations. Fukuyama et al. (1988) found that the intervention group students experienced moderate increases in career decision self-efficacy ($d = .58$) and moderate reductions in career indecision ($d = -.60$) compared to the control group.

Kraus and Hughey (1999) assessed the career decision self-efficacy and career indecision of 58 high school juniors (with an average age of 16 years). Kraus and Hughey tested the students immediately after (at posttest) and four weeks after (at follow-up) the students in the intervention group completed a series of eight careers classes. Part of the intervention program included the completion of the SDS and exploration of the resulting career alternatives. Kraus and Hughey concluded the gains made by all participants persisted over time (measured at follow-up). Their conclusion that no differences existed between the control and intervention groups, may have been based on a lack of statistical significance arising from small sample sizes. Kraus and Hughey's reported data indicated that the intervention group, compared to the control group, experienced small to moderate increases in self-efficacy ($d = .37$) and reductions

in indecision (d = -.37) that persisted in the short term. Further studies that provide general support for the efficacy of career interventions include (among many others) Barnes and Herr (1998), Cox (1997), and Mau, Calvert, & Gregory (1997).

In summary, the evidence from research over more than two decades indicates that career interventions work. Although variation exists (depending on specific characteristics of the study) in the intervention methods, the measured outcome variables, and the extent of change, the effects of careers interventions are almost universally positive. There is also evidence that career outcome gains may not be limited to those in the "treatment" groups, but that the completion of career measures alone may be sufficient to stimulate positive change in measured career variables. Finally, the few research studies that have included follow-up measurements indicate that the intervention gains may persist at least in the short term.

ACE Advisor Training

Although the available research supports the efficacy of career interventions overall, considerable variation in the outcomes exists among the various individual career interventions programs. That is, the effectiveness of any particular intervention depends to some extent on the content and delivery of the program, elements mediated by the career counselors providing the services. One of the essential elements of effective ACE service delivery is the competence and training of the people working with the athletes. The following section presents a discussion of the literature related to career counsellor training, and some of the detail of the training provided to ACE advisors.

Although there is a vast literature on counsellor and therapist training and supervision, the literature regarding career counsellor training is limited. For example, a PsychINFO database search (using both American and British spelling) on the terms

"career counselling standards," "career counsellor supervision," "career counselling training," and "career counsellor training" produced six references. A similar search replacing the variations in "career counsellor" with the more general terms of "counsellor" and "therapist" produced 2,330 references.

Of the six career counselling articles, four were focused on particular narrow aspects of career counselling and career counsellor training (i.e., the need for career counselling in China [Borgen, Amundson, & Cao, 1994], training for career counselling over the Internet [McCarthy, Moller, & Beard, 2003], a Swedish perspective on Bourdieu's theories for career counselling [Lindh & Dahlin, 2000], and the influence of a limited cultural mindset on the analysis of human experience [Myers, Haggins, & Speight, 1994]). The authors of the remaining two articles discussed the changes they felt should occur to career counsellor training. Swanson and O'Brien (2002) discussed the changes needed to meet the demands of clients into the 21st century. Their recommendations reflected the increasing emphasis in career counselling of an integrated and holistic approach. For example, Swanson and O'Brien recommended an increased focus on multicultural issues, advocacy, and emotional and social influences in career counselling. Peavy (1992) discussed the application of a constructivist model of training for career counsellors. Peavy advocated that, rather than offering primarily informational services for clients, career counselling practices should emphasise assisting clients to construct personal meanings, and take personal responsibility for changes. Similar to Swanson and O'Brien, the changes advocated by Peavy reflected a shift toward holistic approaches to career counselling.

Both Swanson and O'Brien (2002) and Peavy (1992) appeared to discuss career counselling as a specialist offshoot of general counselling. Engels, Minor, Sampson, and Splete (1995) made this assumption explicit. "Once counseling students have

demonstrated adequate minimal general counseling skills, they can begin to specialize in career counselling" (p. 135). Corey, Corey, and Callanan (1998), in their discussion of issues and ethics in helping professions, supported the view that counsellors working in the specialist fields such as career development, should first complete general content areas that are part of a core counsellor training curriculum.

McLeod (1998) identified six areas of competence for general counsellors. These were: interpersonal skills, personal beliefs and attitudes that facilitate client growth, conceptual ability, the absence of personal needs or irrational beliefs that undermine counselling relationships, mastery of technique, and a working understanding of social systems. These competencies reflect a need for training and growth opportunities in two broad areas: professional skills, and personal development and self-awareness. Inskipp (1996), in her text on skills training for counsellors, reinforced the need for competence in both areas, arguing that competency in skills alone does not necessarily make a good counsellor.

The British Association for Counselling (BAC) recognize eight basic elements of professional counsellor training (Dryden, Horton, & Mearns, 1995). These elements are: an admissions policy, ongoing self-development, substantial and regular client work, skills training, professional development, and proper assessment and evaluation procedures. That is, in addition to skill development and self-awareness components, professional counsellor training programs should have sufficient structure to ensure that candidates are assessed for admission and completion, and are provided with the opportunity for regular applied practice during the training. The BAC stated that such a course should have a minimum of 400 staff-student contact hours.

In determining these guidelines the BAC differentiated counsellor training from counselling skills training. That is, the BAC recognised that briefer and more narrowly-

focused programs are valuable for a range of professionals who use counselling skills in their work (e.g., teachers, social workers, health workers). The content of counselling skills training programs (and specialised counselling training courses) are necessarily focused on the acquisition of counselling skills rather than the self-development activities that are a part of professional counsellor training (Dryden et al., 1995).

In summary, many British and American writers have indicated that career counselling represents a specialist area of general counselling, and that career counsellors should therefore complete training in all the core elements of general counselling. The Australian Association of Career Counsellors (2003a; AACC) also referred to career counselling as a specialised field of counselling. They described career counsellors' work as providing individual evaluations, administering and interpreting tests of ability, providing training in resume preparation and job hunting skills, providing coaching for decision-making and conflict resolution, providing support during transitions, and coordinating services with other helping professions (Australian Association of Career Counsellors, 2003b). Professional admission to the AACC does not require the completion any specific training program. Professional admission is available to applicants who have a (unspecified) tertiary qualification, and who are currently working in career counselling in a position they have held for at least one year (Australian Association of Career Counsellors, 2003a). Professional admission is also available to counsellors who do not have a tertiary qualification, but who have been working in career counselling for at least five years. The absence of the requirement for specific training in general or career counselling in the admission prerequisites may reflect the relative youth of the field as a recognised profession in Australia.

Until 2002, all ACE advisor training graduates completed training in four key areas: the structure and function of sport (in Australia, New Zealand, or Great Britain), counselling issues in athlete career education, the Athlete Career Education program, and the ACE practicum (Victoria University, 2000). Entry prerequisites included a Bachelor degree in human movement, education, sports science, psychology, or related area or equivalent, and preferably with components related to career counselling, and a minimum of two years of appropriate experience in the field. The current form of the course requires approximately 230 hours to complete (Victoria University, 2001). The focus on skills in the structure, the absence of personal development and self-awareness components in the course, and the duration less than 400 contact hours, indicate that ACE advisor training would probably fit within the BAC's definition of counselling skills training, rather than professional counsellor training.

The first module of ACE advisor training, sport in Australia, contained three topics designed to familiarise students with the structural and administrative aspects of sport, and the ways these aspects can be used to assist athletes. The module also contained information on the general purpose and structure of ACE, and the procedures for obtaining credit for prior learning.

The second module covered four topics: career counselling theory, the process of counselling, the role of parents, and athlete issues. The topics included information on professional ethics, counselling microskills, a range of theoretical models of career counselling, and the particular issues faced by athletes, including important non-sport relationships and roles that athletes maintain. This area included the completion of a supervised telephone-based ACE assessment of an athlete.

The Athlete Career Education program module contained five topics covering the practical functions of ACE services. These functions included the preparation and

delivery of ACE training programs, the conduct of ACE assessments, creating and implementing career and education action plans (including the delivery of a vocational assessment), and operation of administrative functions, including the development of professional referral networks. The final module, the ACE practicum, contained the bulk of the applied training (in the form of supervised and independent counselling), and topics about the presentation of reports, and workplace safety. At the time of the present program of research, all ACE advisor training graduates had completed their study under this structure.

In summary, graduates of the advisor training program receive a grounding in the structure and operation of sporting organisations, the principles of career counselling, and the tasks of ACE advisor work. Any review of the efficacy of the training should include a discussion of not just the areas included in the syllabus, but of the training methods, and of the applied value of the training in work with athletes. No research exists regarding the training of ACE advisors.

Literature Review Summary

Although many elite athletes complete the adjustment to retirement from elite sport without major distress, there is strong evidence that a significant number, approximately 1 in 5 athletes, experience some difficulties (Grove et al., 1998). The limited available research evidence suggests that programs that provide athletes with career and education planning assistance and general coping skills can assist athletes with successful adaptation to retirement (Petitpas et al., 1992).

ACE is a national athlete assistance program available to all IAS scholarship-holders. ACE objectives are to assist athletes with vocational, educational and personal development opportunities, and to do this within the context of striving for excellence in sport. That is, ACE is focused on both assisting athletes prepare for their post-athletic

careers, and on helping athletes in the day-to-day management of their sporting and non-sporting lives.

Research on career interventions in the general population indicates that such interventions have a positive impact on a range of career-related variables. The research on athlete career and education programs though generally positive, is limited in scope and requires further systematic investigation. An important factor in the delivery of athlete support and assistance services is the competence of the counsellors, something that is influenced by the program of training they receive.

The absence of existing research does not, of itself, justify a research program. Research should be justified by its direct or indirect value. Given the apparent prevalence of distress and difficulties on retirement from elite sport, and given the extent of resources required to deliver a national program designed, in part, to address these difficulties, the efficacy of such a program is worthy of research. Three principal areas for such research were identified from this review. The first was to investigate which aspects of ACE athletes find more and less useful. The second was to evaluate whether the careers interventions used with non-athlete populations have similar effects with athlete populations. Finally, given the influence that advisor competence and training should have on the quality of service delivery, an opportunity existed to gain an understanding of the usefulness of ACE advisor training as perceived by those working with athletes.

Proposed Research

The aim of the present research program was to explore and describe the usefulness of athlete services provided by ACE and the training undertaken by graduate ACE advisors. The research was not intended to be an exhaustive evaluation of the service. This investigation of the usefulness of ACE included three elements: an

investigation of the athletes' perceptions of ACE services, an experimental intervention to explore the effects of ACE-type career interventions, and an investigation of the advisors' perceptions of their training and the extent to which they received credit for prior learning.

These elements resulted in a research program consisting of three studies. The aims of the first study were to explore the extent of ACE service usage by athletes, and the perceived usefulness of those services, and identify the services that athletes were interested in using in the future. The second study was designed to evaluate the effects of a brief ACE-type careers intervention program on elite youth footballers' self-perceptions, the intervention program consisting of a group workshop and an individual counselling and feedback session. The aim of the final study was to identify the components of training from ACE and non-ACE sources that graduate advisors believed were more and less useful in practice.

CHAPTER 2

STUDY ONE: ATHLETES' PERCEPTIONS OF ACE SERVICES

Introduction

Australian sport institutes put considerable effort and expense into the development and implementation of ACE. In one of the very few investigations of ACE services, Gorely et al. (2001) found that, although a majority of athletes had used ACE services at some time, nearly one-third of respondents had had no contact with ACE staff in the preceding 12 months. Though more than 75% of athletes were at least moderately satisfied with ACE services, nearly one quarter of athletes felt that ACE was not meeting their needs satisfactorily.

The focus of the present study was to gain a more detailed understanding of athletes' perceptions of ACE services. In particular, the present study was focused on determining which ACE services athletes have used, their perceptions of the usefulness of each of those services, and identifying which of ACE services athletes might be interested in using in the future. In addition, the study provided athletes with the opportunity to describe those aspects of ACE they found the most useful, and those that they felt could be improved. Finally, relationships between use, satisfaction, and interest, and the athletes' demographic information was investigated to identify any patterns in the data.

Method

Participants

All scholarship-holding athletes from the Australian Institute of Sport (AIS), the ACT Academy of Sport (ACTAS), the New South Wales Institute of Sport (NSWIS), the Northern Territiory Institute of Sport (NTIS), the Tasmanian Institute of Sport (TIS), and the Victorian Institute of Sport (VIS) were potential participants in the study, and received questionnaires in the mail. Usable responses were provided by 289 athletes giving a return rate of 27.1%. The breakdown of the athletes who received the questionnaire and who responded is provided in Table 4.

Table 4

Athletes Who Received and Responded to Questionnaire

Institute or Academy of Sport	Sent	Responded	Percentage
ACT Academy of Sport	79	27	34.2
Australian Institute of Sport	245	57	23.3
New South Wales Institute of Sport	320	75	23.4
Northern Territory Institute of Sport	107	24	22.4
Tasmanian Institute of Sport	65	28	43.1
Victorian Institute of Sport	249	77	30.9
Undisclosed	0	1	n/a
Total	1065	289	27.1

Materials

Athletes received a questionnaire, a covering letter, an information sheet, a parental consent form (for completion by parents of athletes under 18 years of age), and an addressed and reply-paid envelope. Copies of these documents are included in

Appendices A to D.

The questionnaire consisted of three sections. In the first section, athletes provided information about services that they had used. The questionnaire contained lists of the services provided to individuals and group training courses. The lists of services and courses were developed from the ACE training manual, and statistical reports of ACE service provision. All duplications were removed from the complete list of services derived from these sources, and the final lists were developed in consultation with VIS ACE staff in August 2000. The final lists contained 13 individual services and 26 group training courses.

In respect of services that they had used, athletes provided a usefulness rating on a four-point scale. The four points of the scale were "not useful," "a little useful," "moderately useful," and "very useful." Athletes also identified other services that they had used (and their respective ratings) and the group training course topics where they had received the training on an individual basis. Finally, athletes provided textual responses to two statements: "Please describe what you feel is the most valuable aspect of ACE services for you," and "Please describe any aspects of ACE services you feel could be improved."

In the second section, athletes provided information about services they had not used. Athletes were provided with the same lists of services that they had used in section 1, and indicated, on a three-point scale, the degree of interest they had in using the services in the future. The three points of the scale were "not interested," "might be interested," and "very interested." Space was provided for athletes to list other individual services or group training courses in which they were interested, but which were not included in the lists.

Finally, athletes provided general demographic information (i.e., age in years,

gender, principal competitive sport, number of years in competition at State level or above). In this final section athletes were thanked for their participation, and reminded to return the survey in the reply paid envelope.

ACE services in the New South Wales are sometimes referred to using the alternative label "athlete management services" (AMS). As a result, NSWIS athletes received a modified questionnaire in which all references to "ACE" were replaced with "ACE/AMS."

Procedure

The Institutes or Academies of Sport in Queensland, South Australia, and Western Australia chose not to participate in the study. With the exception of NSWIS, ACE staff from the participating Australian and State Institutes and Academies of Sport (IASs) provided lists of athletes aged 16 years or older, and who had held scholarships within the preceding 12 months.

In June 2001 questionnaires were mailed to 1065 athletes from the six participating IASs. A second mail out was completed on 31 August 2001 to the 823 athletes who had not responded by that time.

Data Analysis

As the study was primarily exploratory, descriptive statistics were used for the analysis of numerical data. In addition, correlations between demographic data and other numerical data were calculated to explore any relationships between demographic variables and those relating to ACE services. Textual data (comments from athletes) was analysed using NUDIST Vivo qualitative data analysis software. Responses to the open-ended questions were coded into categories and then grouped under higher-order themes (Minichiello, Aroni, Timewell, & Alexander, 1995). A second researcher, knowledgeable in the area and experienced in coding techniques, then reviewed the

responses and produced a list of themes that were matched to the initial coding. Where discrepancies occurred, the two researchers agreed the final codes through discussion.

Results

Questionnaires regarding athletes' perceptions of ACE services were sent to 1,065 athletes who held scholarships with Australian and State Institutes and Academies of Sport (IASs). All of the 289 responding athletes provided usable data.

The following section presents an analysis of the numerical and textual data provided by respondents. Following the presentation of demographic data and a description of the data screening process, the section presents the numerical data from the questionnaire regarding athletes' use of ACE services, their ratings of the usefulness of the services, and their interest in the use of ACE services in the future. The final part of the section presents an analysis of comments in response to the open-ended questions included in the questionnaire that related to the most useful aspects of ACE, and those aspects that could be improved.

Demographics

Athletes who responded to the questionnaire had a mean age of 21.7 years (SD = 5.9 years), with a range of 13 to 51 years. These athletes had spent an average of 6.5 years (SD = 4.2 years) competing at State level or above, with a range of less than 1 year to 31 years. The distributions of ages and years of elite competition were moderately positively skewed. Of the athletes who disclosed their gender, 136 were males and 149 were females. Table 5 provides a description, by Institute and Academy of Sport (IAS), of participant ages, genders, and years competing at State level or above. Athletes from the Northern Territory Institute of Sport (NTIS) were, on average, younger (with an average age of 17.2 years), and had less experience in elite competition (3.9 years competing at State level or above) than athletes from other Institutes or Academies.

Table 5

Athletes' Demographic Information

Institute or Academy of Sport	Age[a] (Years)	Years Competing[a]	Gender	
			Male	Female
ACT Academy of Sport	21.0 (5.9)	5.6 (2.3)	13	14
Australian Institute of Sport	21.8 (5.4)	7.8 (4.9)	26	29
New South Wales Institute of Sport	22.3 (6.3)	6.6 (4.7)	30	44
Northern Territory Institute of Sport	17.2 (3.1)	3.9 (2.2)	14	10
Tasmanian Institute of Sport	20.4 (4.0)	7.0 (3.0)	18	10
Victorian Institute of Sport	23.2 (6.2)	6.7 (3.9)	34	32
Undisclosed	27.0 n/a	14.0 n/a	1	0
Overall	21.7 (5.9)	6.6 (4.2)	136[b]	149[b]

Notes: [a] Mean and (standard deviation)
[b] Four athletes did not indicate their gender

Although the target group was athlete scholarship holders of 16 years and above, nine of the athletes who responded were under the age of 16 years, the youngest of whom was 13 years old. These athletes received questionnaires because they were included in the name and address lists provided by the relevant IASs. Although these athletes were outside the target age range, they provided complete and useful information in good faith, and their responses have therefore been included in the analysis.

The athletes represented 36 sports, with 3 of the 4 largest athlete groups representing aquatic sports. Five athletes did not disclose their sport. Table 6 displays the distribution of athletes by sport.

Table 6

Athletes' Main Competitive Sports

Sport	Frequency	Sport	Frequency
Rowing	20	Archery	6
Waterpolo	19	Softball	6
Hockey	17	Tennis	6
Swimming	17	Judo	4
Basketball	15	Rugby union	4
Cycling/mountain biking	15	Squash	4
Netball	14	Weightlifting	4
Soccer	14	Australian Rules football	3
Athletics	13	Boxing	2
Canoeing/kayaking	13	Diving	2
Cricket	13	Handball	2
Baseball	12	Shooting	2
Golf	12	Powerlifting	1
Sailing	9	Alpine skiing	1
Equestrian	8	Taekwondo	1
Track and field	8	Tenpin bowling	1
Gymnastics	7	Triathlon/netball	1
Volleyball/beach volleyball	7	Waterskiing	1
		Not provided	5
		Total	289

Data Screening

Numerical data consisted of counts of athlete use of services, and ratings of the usefulness of services received and interest in the future use of services. Figures 4 and 5 present the frequency distributions for the use of individual and group training services respectively.

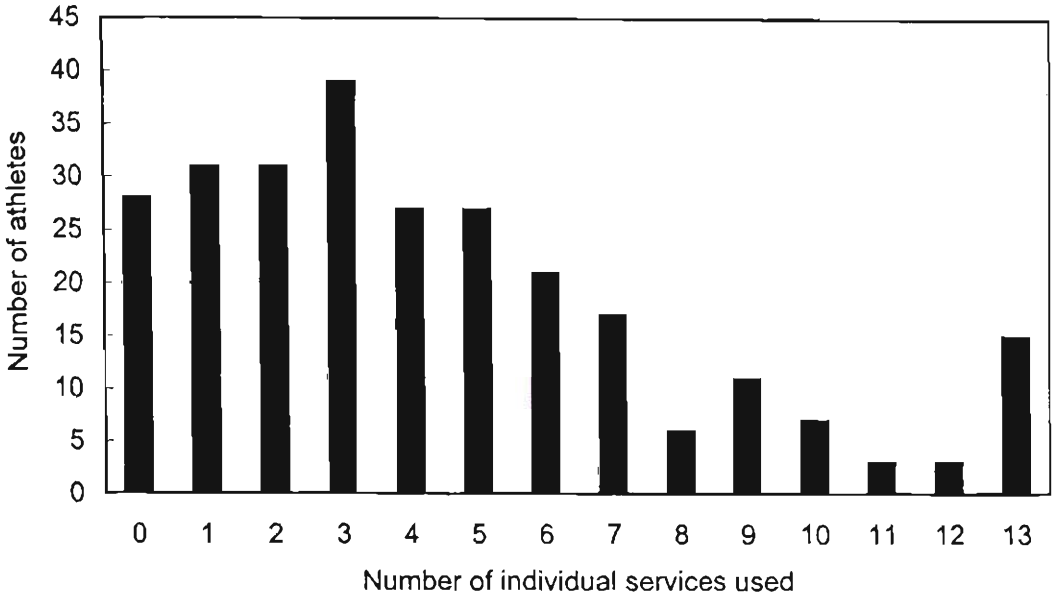

Figure 4. Frequency distribution of athletes' use of individual services.

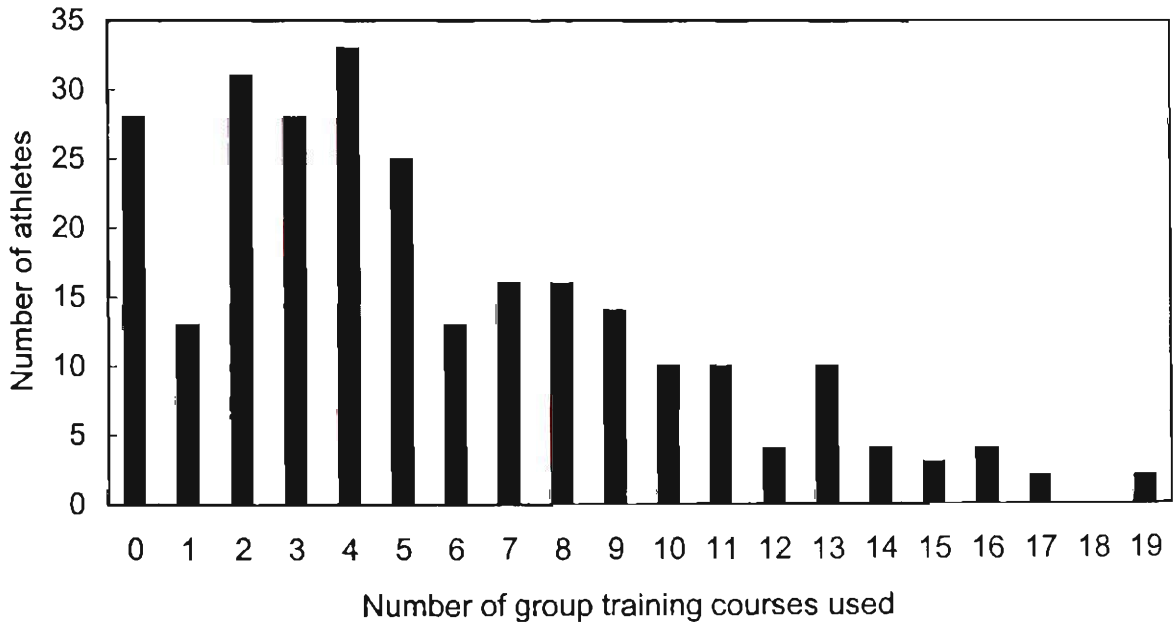

Figure 5. Frequency distribution of athletes' use of group training courses.

Twenty-three athletes indicated they had used 11 or more of the 13 individual services, and at least 22 of the 26 available group training courses. The high number of athletes in this group indicates that, due to misinterpretation of instructions, these athletes provided usefulness ratings for all, or nearly all, services, rather than only for those services they had used. For this reason, the data provided by these 23 athletes have been eliminated from analysis of the numerical data. (Any text-based responses, however, have been retained and included in the analysis.) The athletes who provided the excluded data were evenly distributed among the IASs. Although data for 15 of the remaining athletes indicate that they had used all 13 individually provided services, they had used no more than 19 of the group training services.

The patterns of use for both groups of services were positively skewed. In addition, a large number of athletes indicated they had used all or nearly all of the services available. Although it may be possible to use all of the 13 individually provided services, use of all the group training services is highly unlikely due to the limited availability of these courses.

Athletes were instructed to provide a usefulness rating for those services they had used, and an interest rating for those services they had not. Of the 266 athletes included in the service use data, 197 provided both a usefulness rating *and* an interest rating for at least one of the ACE services listed in the questionnaire, indicating they had both used and *not* used the service. These duplications may have arisen either as a result of errors, or confusion of instructions. Duplications arising from errors in filling out the separated use and interest sections of the questionnaire should result in low numbers of duplications per athlete. A more likely explanation is that athletes confused or misinterpreted the questionnaire instructions and provided ratings for both usefulness and interest, resulting in a large number of duplications.

To eliminate these duplications, all interest ratings, for which use ratings were also provided, were eliminated from the *interest* data. This elimination was completed based on the presumption that the section athletes completed first, in which athletes responded about the services they had used, was likely to be the more accurate.

Service Use

The questionnaire asked athletes to provide ratings of the usefulness of the individual and group training services they had used at some point in their athletic careers. In addition, athletes noted any other individual services and group training courses not included in the lists provided. As ACE advisors cover some group training topics in individual sessions, the questionnaire also made provision for athletes to indicate the group training courses that had been delivered in this way. The following sections provide an analysis of the use of individual and group training services.

Individual services

Individual service use varied from a high of 161 athletes who had used "education guidance" to a low of 33 athletes who had used "retirement support". Table 7 presents a breakdown of individual service use nationwide, sorted on the total use count. The individual services most used by athletes were education guidance (161 athletes), career counselling (137), time management training (120), and the annual ACE interview (113). Although there was considerable variation among the IASs, these same four services were used extensively through each. Other individual services rated in the top four at at least one IAS were: integrating sport and career demands (NTIS, TIS, and VIS), job contacts (AIS and NSWIS), job search preparation (AIS), speaker's engagements (the most used TIS service), and sponsorship advice (NSWIS).

Table 7 also presents the percentage of athletes who used each service. Only "education guidance" and "career counselling" were used by more than half of the

athletes. A number of services had higher rate-of-use percentages at IAS level. Of the four most used services overall, all were used by more than 70% of athletes from at least one IAS. ACTAS had the most well-used individual services with all the top four having rate-of-use percentages of nearly 70% or more.

Table 7

Athletes' Use of Individual Services

Individual Services	Frequency	Percentage of Respondents
Education guidance	161	60.5
Career counselling	137	51.5
Time management training	120	45.1
Annual ACE interview	113	42.5
Integrating sport and career demands	96	36.1
Job contacts	93	35.0
Job search preparation	87	32.7
Speaker's engagements	83	31.2
Counselling support	70	26.3
Sponsorship advice	70	26.3
Referral to other support services	67	25.2
Financial and budget advice	49	18.4
Retirement support	33	12.4

None of the IAS use counts rated the mandatory annual ACE interview as the most used service, and less than half the athletes indicated they had used the annual ACE interview during the course of their scholarships. Only the ACTAS (74%) and the

NTIS (62%) athletes indicated that more than half of their number had used the interview.

Athletes used an average of 4.4 (*SD* = 3.5) of the 13 individual services during their sporting careers, and 15 athletes (or 6%) indicated they had used all 13 services. Table 8 presents a summary, by IAS, of the number of individual services used by athletes.

Table 8

Per Athlete Use of Individual Services

Statistic	Total	ACTAS	AIS	NSWIS	NTIS	TIS	VIS
Mean number of services used	4.4	6.4	4.7	3.5	4.2	3.9	4.7
SD	3.5	3.5	3.8	3.6	3.7	3.0	3.1
Used all 13 services	15	3	4	4	2	1	1
(%age of athletes)	5.6%	13.0%	7.5%	5.5%	9.5%	3.8%	1.4%

Relationships between the number of individual services used and demographic information were weak. Age (r = .05), gender (r = .01), and years of elite sport competition (r = .17) are largely unrelated to service use. Likewise, there was little relationship between the extent of service use and the usefulness rating (r = -.14), or the level of interest in its future use (r = -.15).

Athlete use of individual services varied by IAS. The differences (represented by Cohen's *d* values) between IASs are displayed in Table 9. A one-way ANOVA and post hoc analysis indicated that athletes from the ACTAS used more and the NSWIS used

less services than those athletes from each other and the majority of the other IASs, $F(1, 264) = 2.93, p = .01$.

Table 9

Differences in Individual Service Use by Institute or Academy of Sport

Institute or Academy of Sport	AIS [a]	VIS [a]	NTIS [a]	TIS [a]	NSWIS [a]
ACTAS	.46	.51*	.62*	.79*	.82*
AIS		-	.15	.25	.33*
VIS			.16	.28	.37*
NTIS				.09	.19
TIS					.11

Notes: [a] Cohen's *d*
* $p < .05$

Ten athletes indicated they had received individual services other than those listed in the questionnaire. Three athletes indicated they had received assistance with university issues, specifically: course selection, late enrolment, and liaison. Two athletes indicated they had received nutritional help, and two further athletes indicated they had received help with personal presentation training. All except one of these services were rated as very useful, and the remaining service, personal presentation training (for one athlete), was rated moderately useful. The remaining individual services identified by athletes as not included in the questionnaire were: conflict resolution, financial help, media training, and "someone to talk to" (all rated very useful), and "confidence", "imagery", and a "bar course" (all rated a little useful). Although identified as "services

not listed" by the athletes, many of these services were related to group training course topics, or could be subsumed under general "counselling support".

Group training courses

The use of group training courses varied from a high of 173 athletes who had attended a "drugs in sport" presentation to a low of 13 athletes who had attended a "taxation principles for athletes" seminar. Table 10 presents frequency-of-use data for group training courses for the total sample, sorted on the total use count. The seven most attended group training courses (of the 26 available to athletes) were: drugs in sport (173 athletes), goal setting (127), public speaking (120), nutritional cooking (115), effective time management (109), basic sports psychology (108), and working with the media (99). These same seven courses were also the most commonly used courses by athletes at each of the IASs. The only other group training courses to rank in the top seven for the individual IASs were study skills (ACTAS and TIS), being an elite athlete (NTIS and TIS), and, the otherwise little used, dealing with conflict (TIS).

Table 10 also lists the percentage of athletes who used each training course. Only "drugs in sport" was used by more than half of the athletes, although all of the top seven group training courses were used by between 40% and 50% of athletes. These percentages varied widely among the IASs. "Drugs in sport" was the most attended group training course in all the IASs except the TIS and VIS. Attendance rates for this course were all in excess of 50% and varied from 91.3% (ACTAS) to 50.7% (VIS).

The rate of use of the most popular group training courses varied among the IASs. The top six most attended group training courses at the NTIS and ACTAS had attendance percentages between 56% and 92%. Similar ranges for the other IASs were 46% to 77% for the TIS, 43% and 70% for the AIS, 30% and 75% for the NSWIS, and 30% and 51% for the VIS.

Table 10

Athletes' Use of Group Training Courses

Group Training Courses	Frequency	Percentage of Respondents
Drugs in sport	173	65.0
Goal setting	127	47.7
Public speaking	120	45.1
Nutritional cooking	115	43.2
Effective time management	109	41.0
Basic sports psychology	108	40.6
Working with the media	99	37.2
Study skills	66	24.8
Personal image and presentation	59	22.2
Being an elite athlete	56	21.1
Travel arrangements	52	19.5
Sponsorship proposals	43	16.2
Career planning	43	16.2
Stress management	40	15.0
Negotiation skills	32	12.0
Maximising the resume	31	11.7
Assertive communication	28	10.5
Budgeting and financial management	28	10.5
Self-awareness for athletes	26	9.8
Post-Olympic debrief	22	8.3
Athlete management	21	7.9
The job interview	19	7.1
Dealing with conflict	19	7.1
Sports law and the athlete	18	6.8
Computing	18	6.8
Taxation principles for athletes	13	4.9

Of the least-used group training courses, computing and the post-Olympic debrief were the only courses to have under 10% use both overall, and in all the IASs. Other courses with less than 10% use overall were dealing with conflict, sports law and the athlete, taxation principles for athletes, self-awareness for athletes, athlete management, and the job interview.

During their sport careers, athletes used an average of 5.6 (SD = 4.3) of the 26 group training courses offered by ACE. After the removal of apparently erroneous responses (referred to previously), no athletes indicated they had used all 26 courses. Table 11 presents a summary, by IAS, of the number of individual services used by athletes.

Table 11

Per Athlete Use of Group Training Courses

Statistic	Total	ACTAS	AIS	NSWIS	NTIS	TIS	VIS
Mean number of services used	5.6	7.9	5.7	4.8	7.0	6.3	4.8
SD	4.3	4.1	4.5	3.9	4.5	4.1	4.4

Relationships between the number of group training courses used and demographic information were again weak. Age (r = -.18), gender (r = .03), and years of elite sport competition (r = -.13) do not predict course use. Likewise there was little relationship between the extent of course use and the usefulness rating (r = -.04), or the number of athletes who had not used a course and interest in its future use (r = .09).

As with individual services, athlete use of group training courses varied by IAS. The differences between IASs are displayed in Table 12. A one-way ANOVA and post

hoc analysis revealed that athletes from the ACTAS used more services than those athletes from the majority of the other IASs, $F(1, 264) = 3.025$, $p = .01$. Athletes from the NSWIS and VIS tended to use less group training courses than athletes from other IASs.

Table 12

Differences in Group Training Course Use by Institute or Academy of Sport

Institute or Academy of Sport	NTIS [a]	TIS [a]	AIS [a]	VIS [a]	NSWIS [a]
ACTAS	.20	.38	.51*	.73*	.78*
NTIS		.16	.29	.50*	.54*
TIS			.14	.36	.39
AIS				.21	.22
VIS					-

Notes: [a] Cohen's *d*
* $p < .05$

Six athletes indicated they had attended group training courses that were not listed in the questionnaire. Of these, two athletes indicated they had attended a course in self-massage (and rated this course as moderately useful). The remaining group training courses identified by athletes as not included in the questionnaire were: a bartender course, and courses on diet, sleep management, and tertiary entrance (all of which were rated very useful).

Many athletes (24%) indicated they had received individual training on topics listed as group training courses. Of these, three athletes indicated that *all* their training

(in group-training-course topics) had been received as individual services. That is, they received individual training in at least 11 of the training courses on offer. These athletes may have misunderstood the questionnaire's instructions and assumed that if they attended a training course they had received personal instruction. (Their data is included already in the group training course use and usefulness information.) For this reason the data from these three athletes have been excluded from Table 13 (which is an analysis of individually provided group-training-course topics).

Table 13

Group Training Courses Delivered as Individual Services

Group Training Course	Frequency	Group Training Course	Frequency
Goal setting	22	Study skills	5
Basic sports psychology	22	Dealing with conflict	4
Public speaking	18	Being an elite athlete	4
Nutritional cooking	13	Personal image and presentation	4
Maximising the resume	10	Post-Olympic debrief	3
Effective time management	10	Travel arrangements	3
Sponsorship proposals	9	Assertive communication	2
Working with the media	8	Computing	2
Stress management	8	Sports law and the athlete	2
Career planning	7	Negotiation skills	2
Athlete management	5	The job interview	1
Drugs in sport	5		
		Total	169

Athletes identified goal setting and basic sports psychology as the group-training-course topics most frequently provided through individual instruction. Other

commonly cited individually-provided group topics were public speaking, nutritional cooking, resume preparation, and time management skills.

Usefulness Ratings of Services

This section presents the usefulness ratings provided by athletes. Overall, athletes rated both individual services and group training courses as moderately useful (with a difference in the mean ratings of the two service types of 0.3 on a 4-point Likert scale). The usefulness data have been presented by ordering services based on the percentage of athletes who rated them as moderately or very useful. The use of calculated means or medians for describing these data were unhelpful because they are not intended to provide an indication of variability in the ratings. Furthermore, because there were only four possible ratings ("very useful," "moderately useful," "a little useful," and "not useful"), variability information seemed to be best displayed by presenting a summary of the athletes' ratings rather than using more abstract measures of variability such as the standard deviation.

Individual services

Table 14 presents a summary of the athletes' usefulness ratings of individual services. With one exception (retirement support), more than 50% of athletes rated the listed individual services as moderately or very useful. The seven top-rated services (integrating sport and career demands, referral to other support services, career counselling, counselling support, time management training, job search preparation, and education guidance) received "moderately" or "very" useful ratings from at least 70% of athletes. These top seven services also recorded the lowest percentages of "not useful" responses, all of which were 10% or less. Re-ordering the services based solely on the percentages of "very useful" responses resulted only in speaker's engagements replacing career counselling in the top seven.

Table 14

Athletes' Usefulness Ratings of Individual Services

Individual Services	Percentage of Users				
	At Least Moderately Useful	Very Useful	Moderately Useful	A Little Useful	Not Useful
Integrating sport and career demands	78	45	33	16	6
Referral to other support services	75	40	34	19	6
Career counselling	74	32	42	21	4
Counselling support	74	41	33	16	10
Time management training	74	38	36	19	7
Job search preparation	74	40	33	16	10
Education guidance	72	39	33	25	2
Speaker's engagements	69	43	25	19	12
Annual ACE interview	62	33	29	27	11
Job contacts	61	33	28	27	12
Sponsorship advice	57	24	33	23	20
Financial and budget advice	51	16	35	24	24
Retirement support	36	18	18	21	42

The three lowest-rated services recorded the highest percentages of "not useful" responses. "Not useful" represented 42% of the usefulness ratings for retirement support, 24% for financial and budget advice, and 20% for sponsorship advice.

Athletes' ratings varied depending on the IAS with which they were affiliated. The top-rated services from three of the IASs (ACTAS, NTIS, and TIS) achieved moderately and very useful ratings from 100% of the athletes. The top-rated services

from NSWIS and VIS achieved ratings in excess of 85%, and the top-rated AIS service was highly rated by 68% of athletes. All of the 13 services were rated among the top seven most useful individual services in at least one IAS.

Group training courses

Athletes, in general, provided higher usefulness ratings for group training courses than for individual services. Table 15 presents a summary of athletes' usefulness ratings for group training courses. There was comparatively little variation in the usefulness ratings of the top 24 (of 26) courses. With one exception (taxation principles for athletes), more than 65% of athletes rated the courses as moderately or very useful.

The ratings for group training courses varied little from IAS to IAS. Only four IAS courses received moderately or very useful ratings from less than 70% of athletes. These were goal setting (ACTAS), public speaking (ACTAS), working with the media (ACTAS and NTIS), and effective time management (TIS).

Interest in the Future Use of Services

The questionnaire requested athletes to indicate the extent of their interest in the future use of ACE services that they had not already used. Athletes indicated their interest as "not interested," "might be interested," or "very interested." Athletes indicated strong interest in the future use of ACE services with 99% of respondents indicating some interest in at least one service, and 85% indicating they were very interested in at least one service.

Table 15

Athletes' Usefulness Ratings of Group Training Courses

Group Training Courses	Percentage of Users				
	At Least Moderately Useful	Very Useful	Moderately Useful	A Little Useful	Not Useful
Athlete management	90	33	57	10	-
The job interview	89	26	63	5	5
Dealing with conflict	89	53	37	11	-
Assertive communication	89	43	46	11	-
Goal setting	89	45	44	11	-
Sports law and the athlete	89	50	39	6	6
Self-awareness for athletes	88	38	50	4	8
Career planning	88	37	51	12	-
Drugs in sport	88	52	36	10	2
Nutritional cooking	88	51	37	12	-
Public speaking	88	58	30	9	3
Stress management	88	38	50	8	5
Working with the media	87	57	30	13	-
Personal image and presentation	86	36	51	10	3
Negotiation skills	84	44	41	16	-
Maximising the resume	84	52	32	13	3
Basic sports psychology	81	46	35	16	3
Travel arrangements	81	38	42	10	10
Sponsorship proposals	79	47	33	16	5
Effective time management	78	35	43	19	3
Computing	78	50	28	22	-
Being an elite athlete	77	45	32	20	4
Study skills	76	24	52	17	8
Post-Olympic debrief	73	36	36	14	14
Budgeting and financial management	68	32	36	21	11
Taxation principles for athletes	38	23	15	46	15

Individual services

Table 16 presents a summary of the extent of athletes' interest in the future use of individual services they had not previously used. At least 27% of athletes indicated some interest in each individual service. The three services athletes expressed the most overall interest in were job contacts, sponsorship advice, and financial and budget advice. Along with these three services, athletes were very interested in using job search preparation, integrating sport and career demands, and time management training.

Athletes expressed the least interest in retirement support, counselling support, and referral to other support services, all of which had no more than 10% "very interested" responses. A weak negative relationship existed between the number of athletes who had not used the services and the percentage who expressed some interest in the future use of the services (r = -.15).

The three individual services that drew the most interest overall (job contacts, sponsorship advice, and financial and budget advice) also drew strong interest at IAS level. Other individual services to make the top three at IAS level were career counselling (NTIS and TIS), job search preparation (ACTAS and NSWIS), and time management training (NTIS and TIS).

Table 16

Athletes' Interest in Using Individual Services in the Future

Individual Services	Number of Athletes Interested			Number Not Used [a]	%age Some Interest	%age Very Interested
	"Very"	"Might Be"	Total			
Job contacts	63	69	132	173	76%	36%
Sponsorship advice	74	73	147	196	75%	38%
Financial and budget advice	53	93	146	217	67%	24%
Career counselling	19	60	79	129	61%	15%
Job search preparation	55	50	105	179	59%	31%
Integrating sport and career demands	43	54	97	170	57%	25%
Speaker's engagements	32	67	99	183	54%	17%
Time management training	30	39	69	146	47%	21%
Education guidance	13	35	48	105	46%	12%
Referral to other support services	10	69	79	200	40%	5%
Counselling support	9	60	69	196	35%	5%
Retirement support	24	39	63	234	27%	10%

Notes: [a] Number of athletes who have not yet used the service

Group training courses

Table 17 presents a summary of the extent of athletes' interest in future attendance at group training courses offered through ACE. Eight of the available group training courses garnered some level of interest from at least 60% of athletes. These

courses were sponsorship proposals, working with the media, public speaking, nutritional cooking, the job interview, budgeting and financial management, maximizing the resume, and taxation principles for athletes. At least 25% of athletes were very interested in attending these courses.

Athletes expressed the least interest in "post-Olympic debrief", "drugs in sport", and "study skills", all of which had less than 40% of athletes expressing *some* interest. These courses, along with dealing with conflict course, had 10% or less "very interested" responses. There was no relationship between the number of athletes who had not used the services and the percentage who expressed some interest in the future use of the services ($r = .09$).

The three group training courses that drew the most interest overall (sponsorship proposals, working with the media, and public speaking) also drew strong interest at IAS level. Only two group training courses that were rated for interest in the top three at IAS level were not in the top eight overall. These courses were career planning (TIS), and goal setting (NTIS), although this last course had less than 16 athletes who had not already attended the course.

Table 17

Athletes' Interest in Using Group Training Courses in the Future

Group Training Courses	Number of Athletes Interested			Number Not Used [a]	%age Some Interest	%age Very Interested
	"Very"	"Might Be"	Total			
Sponsorship proposals	76	82	158	223	71%	34%
Working with the media	47	71	118	167	71%	28%
Public speaking	40	61	101	146	69%	27%
Nutritional cooking	48	47	95	151	63%	32%
The job interview	68	86	154	247	62%	28%
Budgeting and financial management	60	86	146	238	61%	25%
Maximising the resume	68	74	142	235	60%	29%
Taxation principles for athletes	75	77	152	253	60%	30%
Negotiation skills	28	109	137	234	59%	12%
Personal image and presentation	40	81	121	207	58%	19%
Career planning	51	79	130	223	58%	23%
Athlete management	42	99	141	245	58%	17%
Sports law and the athlete	42	98	140	248	56%	17%
Assertive communication	43	87	130	238	55%	18%
Stress management	43	76	119	226	53%	19%
Basic sports psychology	37	44	81	158	51%	23%
Being an elite athlete	36	68	104	210	50%	17%
Computing	44	73	117	248	47%	18%
Effective time management	28	46	74	157	47%	18%
Dealing with conflict	23	92	115	247	47%	9%
Travel arrangements	28	70	98	214	46%	13%
Self awareness for athletes	30	73	103	240	43%	13%
Goal setting	16	42	58	139	42%	12%
Study skills	20	58	78	200	39%	10%
Drugs in sport	7	25	32	93	34%	8%
Post-Olympic debrief	12	44	56	244	23%	5%

Notes: [a] Number of athletes who have not yet attended the course

Responses to Open-Ended Questions

Athletes responded to two open-ended questions. The first asked them to "describe what you feel is the most valuable aspect of ACE services for you," and the second to "describe any aspects of ACE services you feel could be improved."

The responses consisted of a large number of very brief statements (most frequently a single sentence or phrase), rather than a small number of in-depth responses. To make sense of the diverse range of comments provided by the athletes, the responses were coded under a number of categories. As relationships between categories became apparent they were grouped under five higher-order themes: resources, awareness, ACE performance, athlete gains, and professional services. Figure 6 provides an illustration of the relationships between the identified themes and categories, and the passage counts for each.

Two hundred and forty-nine athletes supplied answers to at least one of the two questions. Of these, 248 responded to question 1 and 179 to question 2.

Resources

The "resources" theme represented athletes' comments on the resources available through ACE. The resources theme included 56 passages grouped into four categories: "access", "more services", "contact", and "one-to-one."

Access. (16 passages)

The "access" category included responses related to access to ACE services. All the passages coded under this category described respondents wishes for increased access to ACE services. Common statements included requests for more available hours for access to staff and training courses, unrestricted access to courses, and greater access to services in regional and rural areas and in the home.

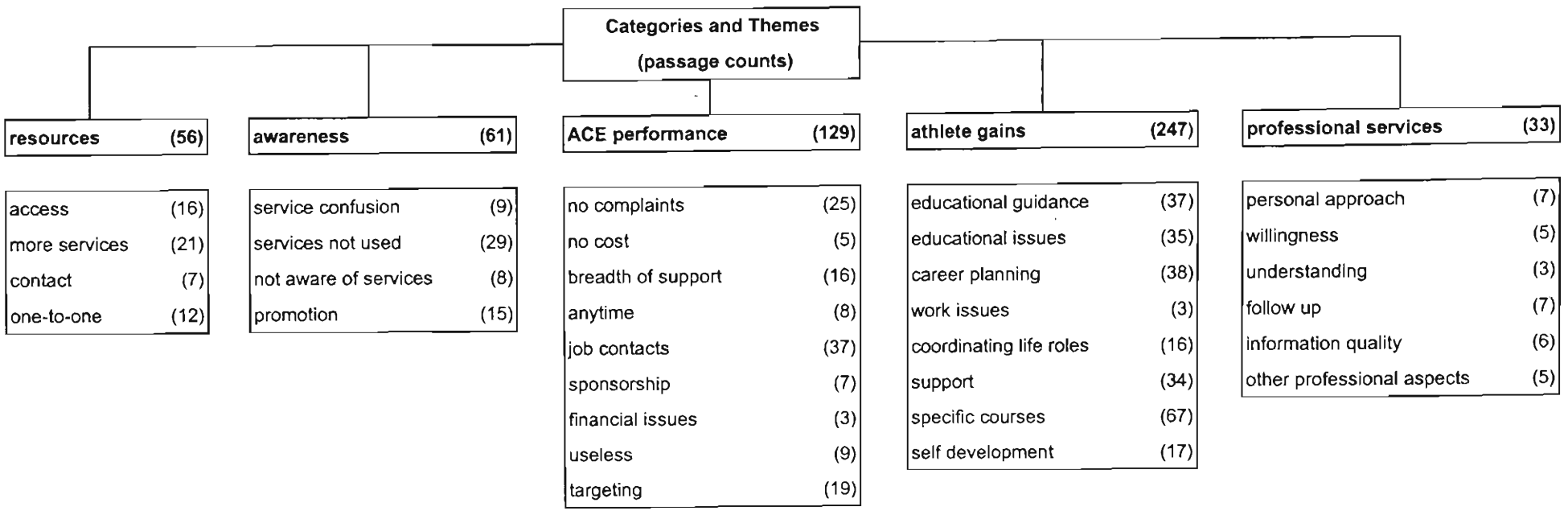

Figure 6. Relationships between themes and categories identified in athletes' responses to open-ended questions.

Example responses included: "[An aspect of ACE services that could be improved is the] availability of service. Often staff [are] unavailable when I'm not working or training." "The only problem I encounter is availability of days and times courses are on." "We are only allowed to do two courses (that are covered financially) per year." "Being an athlete in a regional area, more contact and involvement would be beneficial for all regional athletes."

One respondent commented that greater integration of ACE within the sport training program would be helpful.

> [An aspect of ACE services that could be improved is the] interaction between [the] ACE program and my sport.... The ACE program should be a 'part' of the program and not seen as an outside identity. [I] feel that there should be a better way of introducing the services offered - link them into training time, not outside training hours, so all athletes can benefit.

More services. (21 passages)

Related to the access category were requests for additional services to be offered by ACE. These requests ranged from general requests for increased services (e.g. "[ACE could be improved] if they could offer the courses more regularly") through to requests for specific services. The specific service requests included both group training courses and individual services. Requested training courses included courses on athlete contracts, scouts/managers, sports law, nutritional cooking, team building, negotiation skills and stress management. Some of these courses were already listed as available in the questionnaire (e.g. nutritional cooking, negotiation skills), although not all the listed courses are available at all IASs. There may also be an issue of athletes not being aware of the available courses (see later discussion on "awareness" category).

Athletes also requested the following non-training course services: general counselling, "food during meetings," help for athletes dealing with training boredom, more opportunities for athletes to get to know each other, and additional support "for athletes displaced from their families because of training."

Two athletes raised the question of whether ACE service use should be compulsory. One suggested that ACE consultations should be mandatory, whereas the other indicated there should be "No compulsory seminars." (The compulsion of athletes to use ACE services varies among sports. Although the annual interview is intended to be mandatory for all sports, some sports also make other ACE services and training mandatory.)

Contact. (7 passages)

All seven responses in this category suggested that ACE services could be improved through increased contact between ACE staff and athletes (e.g., "[there should be] more contact with athletes other than annual ACE interview. [ACE staff] should follow [up] with athletes on a regular basis"). Two athletes expressed the view that ACE staff seemed unable to provide sufficient contact due to time constraints (e.g., "the staff/athlete ratio prevents enough contact with individuals").

One-to-one. (12 passages)

All the passages under this category referred to the favourable aspects of one-on-one interaction with ACE advisors. Seven athletes expressed this idea as being one of the most valuable aspects of ACE (e.g., "[it is valuable to be] able to talk one-on-one with someone other than your coach. Someone who still understands your position and requirements of your training load and sport"). The remaining five athletes expressed the idea as one of the aspects of ACE services that could be improved (e.g., "[there

could be] more individual meetings with athletes to make sure they are heading in the right direction for work or school, and to make sure they don't need help").

Awareness

The "awareness" theme included athletes' comments illustrating their awareness of the services offered by ACE, and the promotion of those services. The four awareness categories were "service confusion", "services not used", "not aware of services", and "promotion".

Service confusion. (9 passages)

Some athletes indicated by their comments that they could not distinguish between the services provided by ACE and other services provided by their respective IASs. These comments form the "service confusion" category. Examples of the non-ACE services that athletes indicated were either particularly useful, or could be improved, were fitness testing, medical assistance, nutrition, sport science services, training facilities, coaching, sports psychology, physiology, financial reimbursement, and supply of food.

Services not used. (29 passages)

All the responses under this category indicated that the respondents had used few or none of the ACE services available. A typical example was "I have never really used any of ACE's services so don't know how they could be improved".

Four athletes provided reasons for not using the services. Two of these athletes indicated that they did not have the time to use ACE services (e.g., "as much as I would be interested in using these services, time does not permit. I still have to work full-time as well as train full time. After that, there is not much time left to do anything else"). The remaining two indicated that they had no need of the services due to their young age or access to similar services through university. One athlete commented that,

although he had not used the services during his scholarship years, he "would have liked to do a few more courses" now that he had retired.

Not aware of services. (8 passages)

All eight of the responses under this category indicated that the athletes were not aware of the range of services available through the IASs. Athletes either commented directly, or intimated, that the list of services included in the questionnaire was new information for them. For example, "until receiving your questionnaire I was not aware that most of the services existed".

Promotion. (15 passages)

All but one of the responses under this category came from the question regarding what aspects of ACE could be improved. In their responses, athletes requested ACE staff to promote greater awareness of ACE services. One athlete commented that ACE staff should "make it easier for athletes to become aware of the services available and how to get in contact and involved in them." Another commented that "the services are not well enough advertised."

In a similar vein to the comments in the previous category, two athletes commented that the questionnaire had provided the first indication they had received of many of the services available (e.g., "looking at the list on the previous page, I was not aware that quite so many services were available. They need to let us know a bit more about what they can offer us.")

Three respondents provided specific suggestions as to how ACE should promote its services. These suggestions were to: (a) have coaches promote ACE services, (b) circulate details of the range of available ACE services to athletes annually, and (c) provide more detailed descriptions of the content of courses. Not all athletes felt that ACE services required further promotion. One respondent commented that the most

valuable aspect of ACE services was "continually being informed of upcoming courses".

ACE performance

The "ACE performance" theme included athletes' comments about their impressions of specific aspects of ACE service provision. These comments were differentiated from the "athlete gains" theme (below) by the focus of the comments. "Athlete gains" refer to comments about the effects of the services on the athletes, whereas "ACE performance" consists of comments about the services themselves. There were nine categories in the "ACE performance" theme. These were "no complaints", "no cost", "breadth of support", "anytime", "job contacts", "sponsorship", "financial issues," "not useful," and "targeting".

No complaints. (25 passages)

Responses under this category indicated that athletes were satisfied with ACE services to the extent that they thought either all aspects were valuable, or that they were not aware of any aspects of ACE that could be improved. All except one of the comments were responses to the question asking participants about aspects of ACE that could be improved. The most common responses coded under "no complaints" were "none", "nil", and "N/A". For example one athlete commented "to tell the truth I found all aspects of ACE to be very useful and valuable."

No cost. (5 passages)

Passages coded to this category indicated that the athletes valued the no-cost availability of services. For example one athlete commented that "it's great to have a group of people who can help with such a huge range of skill/personal development, that is of no cost to us." Two of the five comments regarding "no cost" were related to

specific services. These services were education courses, computer courses, and supportive and personal development counselling.

Breadth of support. (16 passages)

Passages coded to this category indicated that the athletes felt comfortable to ask ACE providers for assistance for a wide range of issues. All of the passages expressed athletes' appreciation of assistance they have received with both sporting and the non-sporting issues.

The following three examples typify the athletes' responses. "The most valuable aspect of ACE for me is the services they provide e.g. it is a wide range that caters for all of our needs." "I think they do a great job [covering] many important aspects of athlete requirements beyond their sport. And it seems if they don't have a particular program set up, they can always help regardless." "[The most valuable aspect of ACE is] that you can see them for pretty much anything and they can point you in the right direction or refer if necessary"

Anytime. (8 passages)

Eight of the athletes commented on the high availability of ACE staff to athletes. The passages were uniformly positive. Example comments included "[ACE staff] are available to help you in any aspect immediately!" and "it's good to have [ACE staff] there whenever you need them."

Job contacts. (37 passages)

This category provided the largest number of passages under the "ACE performance" theme. Responses were evenly split between those comments describing "job contacts" as the most useful aspect of ACE services, and those comments that indicated "job contacts" was an aspect of ACE services that could be improved. For example, one athlete commented that the most valuable aspect of ACE was "the

contacts they have provided me for work." Whereas another athlete commented that "help with finding jobs" was an aspect of ACE services that could be improved.

The largest subgroup of passages under this category (10) was comments on part-time employment or employment circumstances that were sympathetic to the training and competition demands of elite sport. Again, comments were evenly split between those who felt this was the most useful aspect of ACE services and those who felt this area was the one most in need of improvement. One athlete indicated the most valuable aspect of ACE was "putting you in contact with employers who are sympathetic with athletes demands. Offering part-time work." A second athlete indicated that help with "finding a casual job which fits with training" was an aspect of ACE services that could be improved.

Retired athletes also commented on the importance of job contacts through ACE. Two of the three respondents felt this service could be improved (e.g., "[An aspect of ACE services that could be improved is] job contacts (didn't receive any from them). After Olympics [I] didn't receive any support or guidance").

Sponsorship. (7 passages)

Passages coded under "sponsorship" commented on the usefulness of, or improvement required to, ACE assistance with seeking sponsorship. Of the seven passages, five indicated that these athletes felt this area of ACE service could be improved. One athlete commented that "the sponsorship ... help I received was very basic stuff I could come up with myself ... a more in depth concept into networking and self-promotion-marketing side would be helpful." In contrast, two of the respondents indicated that assistance with seeking sponsorship was the most useful aspect of ACE services provided to them (e.g., "[the most useful aspect of ACE services was training in] how to approach sponsors and show them you have 'the goods'").

Financial issues. (3 passages)

Three athletes commented on ACE support in financial matters. Two commented that the most useful aspect of ACE was receiving a scholarship or allowance. The third respondent commented that "advice/action with financial hardship" could be improved.

Not useful. (9 passages)

Comments under this category indicated that the athletes had not found any substantial value in using ACE services. Four of the respondents indicated that they had used ACE services and felt either that "all of the services that [they had] used need[ed] to be improved", or that the services they had used seemed of no use (e.g., "more like a hindrance than a help").

The remaining five athletes indicated they had little use for ACE services. They indicated this was due either to lack of time or a lack of interest in the program (e.g., "[I] have no real requirement for any of the services," and "I have hardly used these services because I hardly have time to do my schoolwork let alone muck around with motivational stuff. I just haven't found it useful"). One athlete provided a more in-depth comment indicating the issue was one of priorities rather than service content.

> I don't believe the ACE program is that worthwhile. You only get out of it what you put in and I feel training is a lot more important. But on the other hand there are a lot of things that could have helped me. To tell the truth I would rather use the money that goes to ACE out of my scholarship to travel to competition to gain more experience. Nothing against the people involved with it.

Targeting. (19 passages)

A number of athletes indicated that ACE services could be made more personally relevant through more effective targeting. The most frequent comment was

that ACE services appeared to be targeted at younger athletes, and therefore older athletes found these services less useful. Comments included "I didn't find ACE useful because I feel it is targeted at younger age group in between school and work stage," "avoid treating everyone as a teenager. Some of us have previous work experiences," and "the program could be applied to older athletes."

Another common response was that ACE training courses should take account of the skill levels of participants. Some respondents suggested that having a sequence of courses aimed at different skill levels would be more helpful. For example, "[ACE] could have a few sessions a year on the different subjects at different levels (basic, intermediate, advanced)," and "a sequential development of courses [would be a useful improvement] rather than the same low level courses presented annually by different people." One athlete commented on the effect that prior learning had on the personal value of ACE programs, saying

> Quite often a lot of the [ACE] education programs cover things that most driven athletes have found out themselves a long time before they were at institute level. And when it is covered it is often covered on a more basic format than what the athlete himself/herself had researched and put into practice that skill.

Two athletes commented on service targeting in relation to variations among sports. One of these athletes suggested that many of the "group sessions could be made sport specific e.g. psychology, nutrition, and drugs in sport." The second athlete suggested that targeting needs to be taken further than sport specificity, and that ACE service providers should be "tailoring [services to meet the] needs [of] the individual."

Athlete gains

The "athlete gains" theme represented athletes comments regarding the benefits they received from using ACE services. Nine categories fell under this theme:

educational guidance, educational issues, career planning, work issues, coordinating life roles, support, self-development, and specific courses.

Educational guidance. (37 passages)

All but 3 of the 37 passages under this category discussed educational guidance as the most valuable aspect of ACE services for the athlete (e.g., "they helped me determine what path I was going to take after finishing year 12. Together we looked up courses and developed a plan of attack."). The guidance covered a broad range of educational levels, including mature age study (e.g., "[the most valuable aspect was] education guidance - [after] deciding to go back to study after 10 years"). Two of the athletes noted the particular value of advice they received regarding balancing athletic and educational demands (e.g., "[the most valuable aspect was] their help in assisting ... university decisions, especially since they have you as an athlete in mind").

The three dissenting views on the value of ACE-provided educational guidance expressed either a desire to make use of such services (e.g., "I want ACE to provide me with educational guidance"), or to see "the education guidance part of the ACE services ... improved."

Educational issues. (35 passages)

All except one of the passages in this category described the value and assistance ACE staff provided in dealing with educational issues. The specific assistance received included help with enrolment and transferring courses, arranging extensions and deferrals for exams and assignments, liasing with lecturers and teachers for missed work when away from school or university, arranging tutors, and assistance with securing educational allowances. A number of respondents commented on the assistance provided by ACE staff in helping them to balance educational and athlete responsibilities. One athlete commented that "ACE were very helpful in dealing with

my university. They talked to my lecturers and organized for me to do some of my subjects off-campus so I could continue my academic studies while pursuing my athletic career." Other comments regarding assistance with educational issues included: "The ACE co-ordinator helped me to work with my school to arrange my studies while I was in training camp and overseas," "[the most valuable aspect was] help with school in terms of missing time through competition, training, and trips away," "[the most valuable aspect was] the ability of [ACE staff] to speak to university officials and negotiate [with them] while I was out of town," and "[the most valuable aspect was] being able to call up the ACE people when struggling with school and sport and get back on track."

The only negative response recommended that ACE staff could improve services with regard to "dealing with lecturers".

Career planning. (38 passages)

Most of the responses coded to this category arose from the question relating to participants' perceptions of the most useful aspects of ACE. (Two athletes indicated that career-planning services could be improved, but provided no elaboration.) A typical response was that the "most valuable aspect is with education services, helping to organize the best career path according to time needs." Although some athletes separated career and education services, the previous example was typical of the large proportion of responses in which the two were linked. A similar example was that the most useful aspect of ACE "[would] definitely be education and career guidance. I thought this aspect of ACE was most valuable for me seeing I was finishing my last year of schooling."

Three athletes referred to the marrying of sporting and career goals in the career planning assistance they received. One athlete commented "I have found career advice

to be most helpful in making me aware of the directions I can take. Being able to discuss options with someone who understands training demands is very beneficial."

Work issues. (3 passages)

Three athletes commented on ACE assistance in resolving work issues. Two of the responses indicated that the services provided assisted the athletes in resolving conflicts between work and sport commitments. The third athlete indicated that the service that could be most improved was "help in present employment e.g. help with requests for time off for training. [The] job was not gained through [the State Institute or Academy]. [It] feels like they don't care if you got the job yourself."

Coordinating life roles. (16 passages)

The responses coded under this category described the assistance that ACE provided for athletes to coordinate and manage the conflicting demands of elite sport, work, study, and family and social commitments. A representative response was that the most valuable aspect of ACE was "helping balance work, training and uni into something manageable." One athlete gave a longer commentary on the value of ACE in coordinating his or her life roles.

> The most valuable ACE services for me have been with dealing with combining school and sport. The advice and support I have received in regard to doing my HSC and [sport] at a high-level has been valuable. Without the support I don't think I would have been able to maintain performances in education as well as sport.

Two respondents indicated that the area of ACE that could be most improved was assistance for students in balancing conflicting life-role demands. For example, one athlete commented that

> I feel the only area of improvement for ACE is with uni students. Being one myself I have found it difficult in some ways to manage it with sport. ACE, I feel, could have assisted more in making the transition easier.

Support. (34 passages)

A number of athletes commented that the most useful aspect of ACE was the general support that ACE staff provided. All except one of the passages indicated that support was the most useful aspect of the ACE services they had used. Aspects of support that appeared to be particularly valued were independence, caring, availability, and the ability to deal with a wide range of issues.

For example, athletes stated that the most useful aspect of ACE was "knowing that if I need support or guidance on an area of sport, life, [or] academic [matters], there are staff there willing to help," and "being able to talk one-on-one with someone other than your coach. Someone who still understands your position and [the] requirements of your training load and sport." One athlete likened the support to familial care saying that the most useful aspect of ACE was "having someone to talk to about anything. It's good to know not direct family and friends are the only ones who care."

Two athletes commented on the support provided by adopting a holistic approach adopted in ACE services. One athlete felt that

> ACE providers [are] concerned about the 'whole' person and not just the 'athlete'. This service has been essential to me throughout my competition career and in my decision to retire recently. It is a vital link in the transient world of an athlete.

One respondent suggested that support role provide by ACE staff could be extended. "Sometimes sports don't look after their athletes. ACE could act as an athlete's friend/moderator/voice/protestor/mediator/defender ... As soon as your [IAS]

selections for a team or your scholarship expires most of the [IAS staff] don't want to know about you".

Specific courses. (67 passages)

Passages coded under this category listed or described specific courses that the athletes found to be the most useful aspect of ACE, or could be improved. Courses that respondents labeled as the most useful included public speaking (19 responses), time management (14), goal setting (13), psychology and sport psychology (12), nutrition (11), and media training (9). Other courses that received multiple responses were study skills (5), career planning (3), drugs in sport (3), and computer courses (2). Courses receiving a single "most valuable" response were being an elite athlete, "business related courses", communication, concentration, education and career information, personal presentation, resume preparation, and sponsorship proposals. Three respondents commented that the most useful aspect of ACE were short courses and workshops generally.

Other respondents referred to some of the courses listed above as an aspect of ACE that could be improved. Those courses were public speaking, time management, sport psychology, study skills, and resume preparation. Other courses listed as in need of improvement were personal presentation, and the post-Olympic debrief.

Self-development. (17 passages)

All of the passages coded under this category were responses to the question that asked athletes to describe the most valuable aspect of ACE services. A number of responses referred to positive personal changes in the athletes' self-development (e.g., "the courses help my self-esteem and [widen] my knowledge on basic things in life and [my sport]"). One athlete said that

> [ACE] takes everything to do with your life and sport into perspective, and presents it simply and positively. It relieves stress and after each session I feel recharged, ready to try what I have learned. I find that giving you a way to take a look at realistic achievements plus time management reassures and decreases stress.

Although the responses coded under this category frequently referred to specific courses, the passages indicated that the athletes had realized a more general personal growth over and above the specific skill development that had occurred. These included comments that the most useful aspect of ACE was "public speaking - great preparation for real situations and helps self-confidence. A chance to see your self," and "helping me to find ways of supporting myself and developing as an employment prospect while I continue to pursue my [sporting] goals." Two further athletes commented that the most valuable aspect of ACE was "the overall education package [describing] what the responsibilities of being an athlete are and how the public perception of athletes is a key parameter in your future career as an athlete," and developing "coping strategies and feeling comfortable in new and [unusual] situations, which are part of being an elite athlete."

Professional services

The "professional services" theme represented athletes' comments regarding the professional issues of service provision. The six categories under this theme were personal approach, willingness, understanding, following up, information quality, and other professional aspects.

Personal approach. (7 passages)

Four respondents indicated that the most useful aspect of ACE was the personal approach to service provision taken by their ACE advisors. Comments included that

"[ACE advisors] are genuinely concerned about you and will endeavor to help you out any way they can," and "the most valuable aspects of ACE is the interaction I have with my ACE consultant. [She] is always available and willing to help me with any aspect of university or life in general. It is good to have a friend to deal with."

Three respondents commented that they found the program and advisors impersonal and uninterested. One athlete commented that

> the ACE program has shown itself to be impersonal, although the basis of the program is to give personal guidance. If the people running the ACE program don't take the time to get to know athletes then it is extremely difficult to give personal advice.

Willingness. (5 passages)

All of the comments under this category indicated that athletes had found ACE advisors' willingness to help as the most useful aspect of ACE in their experiences. One athlete reported that "if you need something [ACE staff] will generally go out of their way to help you find it." A second commented that "[ACE staff] are genuinely concerned about you and will endeavor to help you out any way they can."

Understanding. (3 passages)

Two athletes commented on the value of the understanding that ACE advisors provided (e.g., "knowing there's someone ... who understands what it's like to be a high-level athlete"). In contrast, one athlete detailed an incident that appeared to convey communication difficulties with the advisor. The athlete commented that an aspect of ACE that could be improved was "the way some of the ACE staff talk to you".

Following up. (7 passages)

All the responses under the "following up" category indicated that the respondents felt that follow up was an aspect of ACE that could be improved. Some

respondents suggested that more regular contact through follow-up calls would improve ACE service provision (e.g., ACE advisors should make "more contact with athletes other than annual ACE interview. Should follow up with athletes on a regular basis"). Two respondents indicated they had experienced poor follow up in relation to commitments made by ACE staff. One athlete commented that "[ACE staff] hardly ever follow up anything they talk about."

Information quality (6 passages)

Six athletes provided comments regarding the quality of information (most commonly educational information) supplied by ACE advisors. Three athletes indicated that the most useful aspect of ACE services was the quality of information that advisors provided (e.g., "they helped me greatly when selecting a uni this year and thanks to their help and support are going quite well. They give great advice and keep you aware of all possibilities in your field of interest").

Three further athletes indicated that information quality was an aspect of ACE that could be improved. One of the athletes spoke strongly of the need to improve information quality.

> They need to know that the facts are correct before they tell the athlete. On a couple of occasions I have been led down the wrong track because I was given the wrong information. I know that this has happened to some other athletes I know as well. Both times, for both of us athletes, it was to do with university courses.

Other professional aspects (5 passages)

Participant comments on other professional aspects of service included comments on efficiency, people skills, expertise, and open-mindedness. One athlete commented that "although I have only used the annual ACE interview and personal help

with my employer I have found the service EXCELLENT, efficient and professional [emphasis original]."

Athletes also commented on the need for improvement. For example, "I have only been around the ACE program for a few months and they seem like they are inefficient." A second athlete commented that an aspect of ACE services that could be improved was having "more open-minded education liaison officers."

Discussion

Many athletes have made good use of ACE services, although the extent of use varied considerably among athletes. Quite large variations existed in the athlete use of ACE services among the IASs, and these variations were not related to the age, gender, or years of elite competitive experience of the athletes, or the usefulness they ascribed to the services.

Those athletes who had used ACE services generally found them useful. Most athletes reported that they found the services at least moderately useful, and a sizable proportion of athletes rated services as very useful. Comparing ACE delivery methods, athletes used group training courses more than individual services, and rated them as a little more useful.

Some of the differences between services were related to the content of the services. The most used and useful individual services were related to core ACE functions of career and education guidance and managing the demands of a sport-focused life. (This reflects, in part, the emphasis on services related to these functions in the range of the individual services offered by ACE.) Based on the "very useful" ratings, athletes found services related to managing and coping with their sporting lives more useful than education- and career-related services. The most used group training courses tended to be related to sport and sporting-life issues (such as drugs in sport, public speaking, and, less directly, goal setting). Based on the "very useful" ratings, athletes indicated that they found sport-related topics the most useful.

Athletes' interest in the future use of ACE services was almost universal. All except four of the athletes indicated they might be interested in using some ACE service in the future, and 85% indicated they were very interested in using at least one of the services. Job contacts and sponsorship advice generated the most interest among the

individual services, and sponsorship proposals, working with the media, and public speaking were the most popular of the group training courses.

Athletes' comments supported the conclusion that they were generally pleased with the services they had used. The athletes reported that the most beneficial aspects of ACE were the group training courses and those services related to core ACE issues (career and education assistance, and achieving balance in life and sport). The athletes indicated that ACE services appeared to be under-resourced, and that, as athletes, they were not sufficiently aware of the services available through ACE. They also indicated that the job contacts service and the targeting of service delivery could be improved. Finally, athletes were equivocal in their comments regarding professional aspects of service delivery. Athletes identified advisors' willingness to help as the principal professional strength, and inconsistency in follow-up as the most commonly suggested area for improvement.

The key findings of this study were: (a) the extent of and broad variation in service use by athletes, (b) the generally high ratings of the usefulness of services, and (c) the very high level of interest in the future use of services. Following a discussion of these results, this section closes with a consideration of athlete comments on professional aspects of service provision, and the conclusions that can be drawn from the study.

Service Use

Variations in service use. Athletes used, on average, between 4 and 5 individual services and between 5 and 6 group training courses during their sporting careers. Given that the athletes averaged 6.6 years in elite sport, then athletes have been using, on average, a minimum of between one and two services or courses per year. Results from the current study supported Gorely et al.'s (2001) findings that athletes made, on

average, 1.9 contacts with ACE in the 12 month period of his study.

Although most athletes used at least one ACE service during their elite sporting careers, the positively skewed data indicates that a few athletes have made extensive use of ACE services and others have had very little contact with the service. That is, although athletes are generally making good use of the services, a proportion are either unaware of the services, are unable to use them, or have no interest in using ACE services.

Factors measured in the present study that were not related to the extent to which athletes make use of ACE services include interest in the services, their perceived usefulness, and demographic factors such as age, gender, and years of elite competition (none of which have correlations with service use stronger than .18). IAS affiliation is the only factor investigated in the present study that appeared to be related to the rate of service use.

The evidence indicates, therefore, that athletes are interested in ACE services, but that services may not be as available or as well promoted in some IASs compared to others. Athlete comments indicate that availability of services and athlete awareness of services are issues, with nearly 20% describing the need for more services, increased access to services (particularly for regionally-based athletes), and greater contact with ACE personnel (particularly on a one-to-one basis). Athletes also indicated that many were not aware of the range of available ACE services, and advocated greater promotion of ACE.

These comments provided support for many of Gorely et al.'s (2001) recommendations. Gorely et al. recommended an increase in the quality and quantity of services (and particularly in regional areas), a more proactive approach to initiating contact with athletes, and greater effort to improve awareness and accessibility to the

program. Given the usefulness ratings and interest in ACE services of those familiar with the program, increasing the access to and awareness of ACE services seems warranted.

Annual interview. The annual interview is a mainstay of ACE services and is a primary source of contact between ACE advisors and athletes. The interview consists of an assessment of the athlete's current career and education status, and the services that may be of use to the athlete. Gorely et al.'s (2001) study and the present study indicated similar rates of use for the annual interview (43.3% of Gorely et al.'s athletes reported completing an annual interview compared to 42.5% in the present study). That is, both the present study, and Gorely et al.'s study, indicate that less than half the athletes have completed the "mandatory" annual interview.

The comparatively low use of the annual interview may have been partly the result of under-reporting. Athletes may have confused the annual interview with the education guidance or the career counselling services, or may not have considered a single annual phone call (one method of conducting the interview) to be an "annual interview". That two studies have now found that the annual interview, a function considered sufficiently important to be "mandatory", is being completed by less than 50% of athletes must be cause for concern. These findings might be the result of the, already highlighted, resourcing and access issues. Another possible reason for low completion rates of the interview may that advisors are encountering difficulties in gaining access to athletes.

Group training courses versus individual service. Group training courses and individual services had similar rates of use, and garnered similar usefulness ratings. Although group training courses (1482 attendances) appear to have been used by more athletes than individual services (1172 attendances), these results may be misleading.

Whereas group training courses were used more than individual services overall, the most popular group training courses and individual services had similar rates of use. In addition, the questionnaire required athletes to indicate which services they used, but not how many times they had used them. Whereas athletes are unlikely to attend any group training course more than once, the same is not true for individual services. The actual individual service use numbers may have been under-reported because athletes could not indicate multiple use of a single service.

Although the athletes did not indicate any strong preference for the usefulness of one type of service over the other, this does not necessarily indicate that the service delivery methods are interchangeable. The key differences between the two service delivery methods lie in the personalisation of services, and the efficiency of service delivery. One-to-one contact was one of the aspects of services that athletes rated as a "most valuable aspect of ACE". In contrast, information dissemination services (such as the popular "drugs in sport" course) can be delivered more efficiently to groups of athletes. That is, although athletes valued personalised service, the efficiency of the group training delivery method did not diminish the usefulness of these services to athletes. Resourcing may, again, be an issue. The available resources would influence the availability and accessibility of ACE staff, and number of group training courses offered.

Perceived Usefulness

"Now"-related services. All except four of the services listed in the questionnaire were described as at least moderately useful by more than 60% of the athletes. These results support Gorely et al.'s (2001) findings that 88% of his respondents were at least moderately satisfied overall with ACE services, and 82% of the athletes indicated that the ACE services they had used were at least moderately

useful.

The pattern of "very useful" ratings provided an insight into the services that athletes found the most help. In general, the most highly valued services were those that helped athletes cope with, and maximize, their sporting experience. That is, athletes valued those services that helped them in the present, the "now"-related services. These included individual services such as integrating sport and career demands, speaker's engagements, counselling support, and referral to other support services. Of the top-rated group training courses (public speaking, working with the media, dealing with conflict, drugs in sport, maximizing the resume, nutritional cooking, sports law and the athlete, and computing), only "maximizing the resume" and "computing" were not sport-related.

The preference of athletes for services that help them deal with current issues is not surprising given the pressures of elite competition. In making ACE services available to all scholarship holders, the State and national sporting bodies have recognised the importance of working with the sporting and non-sporting needs of athletes, both present and future. ACE appears to be striking a balance between the more popular "now"-focused services, and those services that help athletes prepare for their futures. Both services are highly valued by the athletes, but, not surprisingly, the services that help athletes to deal with here-and-now issues received more "very useful" ratings than services that deal with less urgent matters (like future careers).

ACE services rated less useful. Although athletes rated the vast majority of ACE services as useful, three individual services and four group training courses received the bulk of the "not useful" ratings. These services fell into two broad groupings based on the level of interest in future use of the services. In the first group, those athletes who had not used the services expressed strong interest in doing so, but those who had used

them gave them relatively high "not useful" ratings. The services concerned were financial and budget advice, and sponsorship advice (both individual services), and the group training courses of taxation principles for athletes, budgeting and financial management, and travel arrangements. The results indicate that, although athletes are interested in using these services, they have found the experience of the services disappointing, which provides an argument for reviewing the content and presentation of these services.

The second group contained those services that athletes were not interested in using in the future. These were retirement support and the post-Olympic debrief. Both had low rates of use, low usefulness ratings, and low interest in future use. The low interest in the services was not altogether surprising. Both these services are future-related. That is, neither retirement support, nor the post-Olympic debrief provide any immediate value to current scholarship athletes. That few athletes had used the services was also no surprise. The sample was primarily of currently competing athletes (who were, therefore, not eligible to use retirement services), few of whom would have attended an Olympic Games. The finding that those who had used the services tended to find them not useful is of concern, particularly in relation to retirement support (which received 42% "not useful" ratings). Although comparatively few athletes compete at Olympic Games, ultimately all elite athletes retire from top competitive sport. Nearly half of athletes who have used a specifically designed ACE service to help them with that transition from elite sport found it to be of no assistance. The reasons for these low ratings are not clear. None of the (few) athletes who had used the services made any comments specifically related to either service. The re-development of retirement support services may be an area of opportunity for ACE.

Athletes did, however, comment on two other areas of service provision that

could be improved - service targeting, and facilitating job contacts. The athletes suggested that the targeting of ACE services could be improved by, in particular, taking more account of the age and skill levels of the athletes receiving services. Athletes commented that some group training courses were too basic and did not meet the needs of older, more experienced athletes. Providing sufficient course description in advertising material would go some way to alleviating disappointment for more advanced athletes. Offering advanced-level courses to cater for these athletes would, no doubt, be dependent on available resources and the level of attendance.

The second area, job contacts, was the only category of comments under the theme of ACE performance to demonstrate a polarity of views. Although these athletes agreed on the importance of facilitating job contacts for athletes, half indicated this was an area in which they had been disappointed, and the other half indicated it was one of the most important benefits they received from ACE. By the large number of comments athletes provided, athletes have indicated they feel job contacts is an important aspect of ACE services, one worthy of further development. The polarity of views may be the result of whether athletes actually received any useful job contacts. Those who did would be delighted; those who did not would be disappointed. Maintaining the largest possible network of prospective employers for ACE athletes would be a time-consuming task, but one that the athletes regard as important.

Interest in future use of services

One of the most important findings of the present study was the very high level of interest expressed in using ACE services in the future. In Gorely et al.'s (2001) study athletes also expressed a high level of interest in the future use of ACE services.) Nearly all the athletes (99 %) expressed some interest, and 85% were very interested, in the future use of at least one service.

Athletes responding to the questionnaire that listed the full range of ACE services expressed strong interest in the services. That is, when made aware of the available services, interest was high. Yet athletes also commented on the need to increase awareness of ACE services, and the need for further resources for the program. Once again the issue for ACE does not appear to be one of generating interest in services, but in generating awareness of the services and meeting athlete expectations.

The high levels of interest applied to both individual services and group training courses. The services in which athletes expressed most interest were a mixture of topics reflecting the dual foci of ACE service provision – that is, current life issues and planning for the future. The expressed interest of athletes, however, revealed unexpectedly low ratings for three services, unexpected due to the high usefulness ratings the services received. These services were counselling support and the group training courses of drugs in sport and goal setting.

Athletes provided a range of comments supporting the usefulness of counselling-type activities. All but one of the 34 comments from athletes regarding support from ACE staff described the individual support they received to be the most valuable aspect of ACE services. Most frequently the support was described as arising from talking through issues with someone independent of their sports. Similar to counselling support, the basic sports psychology group training course also generated only moderate interest in future use, in spite of high attendance rates and high usefulness ratings. The low interest in these services may have been the result of stigma attached to any declaration of need for psychological or counselling services (e.g. Martin, Kellman, Lavallee, & Page, 2002).

Two of the most used and useful courses, drugs in sport and goal setting, generated little interest with athletes in future attendance. The minority of athletes

(35%) who have not attended the drugs in sport course may not be interested in the course because they are already well informed, or they have no need of such information in their sport. Likewise, the prevalence of goal setting information and instruction from sources outside of ACE may have resulted in athletes considering themselves already well-informed on goal setting principles, and expressing little interest in attending an ACE course on the topic. There was no evidence, however, of a general relationship between the number of athletes who have not used a service, and interest in its future use.

Professional Services

Athletes were divided in their perception of professional aspects of ACE. Only advisors' "willingness" received universally positive comments, and only their "follow-up" received universally negative comments. The comments on other areas (the personal approach of ACE advisors, the understanding advisors demonstrated, the quality of information provided, and the perceived efficiency, skill, expertise, and open-mindedness of ACE staff) were evenly balanced between praise and criticism.

Athletes generally found ACE services useful, but the mixed responses regarding the professional delivery of services may be indicative of either the underlying value of ACE services, irrespective of the resources and professional skills of advisors, or a limited number of particularly positive and negative experiences that athletes found worthy of specific comment. In either case, these comments indicate that, although some athletes have found the professionalism of ACE service delivery to be exceptional, an opportunity exists to improve the consistency of professionalism in service delivery.

Summary and Conclusions

Athletes have, on average, made regular and extensive use of ACE services. This result, however, obscures the variation of use existing within the athlete group. This variation in service use appears to be related to IAS affiliation, a lack of program resources (particularly in regional Australia), and a lack of awareness of service availability, and not the usefulness of, or interest in, the services. These results may reflect structural issues related to funding, resourcing, and focus at regional and national levels. Nevertheless, programs to build awareness of ACE services, and to improve the quality of, and accessibility to services would reflect athletes' high usefulness ratings of, and interest in ACE services.

The principal tool of ACE advisors, the mandatory annual interview, is used by less than half of the scholarship-holder population, and athletes rate it as only moderately useful. The annual interview is, nevertheless, the principal vehicle for contact between athletes and ACE staff. It provides an opportunity for athletes to explore their current situations, and for ACE advisors to better understand the needs and expressed wishes of the athletes. A review of the form of the annual interview to improve its usefulness to athletes, and a focus on ensuring greater coverage, may improve both athletes' knowledge of ACE services, and their impressions of the value of the annual interview.

The vast majority of athletes rated ACE services as useful and expressed considerable interest in using the services in future. Some opportunities to improve the usefulness of ACE services became evident through usefulness and interest ratings of particular services and courses, and athlete comments regarding the targeting of services, and elements of service delivery by ACE advisors. These opportunities can be summarised in the answers to three questions (a) what do athletes want from ACE? (b)

what do they *not* want? and (c) in what areas do what athletes want, and what they have found useful, not coincide?

Athletes want... Athletes indicated that the services they are the most interested in, and have found the most useful, are services related to helping them cope with life as elite athletes, and improving their sports performances – areas unrelated to career counselling. Secondarily, they have expressed interest in career and education information, and, in particular, services related to the applied tasks of finding a job.

The preference for sport- and life-based services may be due to a number of reasons related to the athletes, the sampling method (the present sample included mostly current athletes), or, simply, because the services were the most useful and relevant. Reasons related to the athletes include the athletes' focus (the benefits of the popular services are immediate), the relative importance of the athlete role in their lives, the extent to which they may have already committed to a sport career path (identity foreclosure).

Athletes valued both individual services and group training courses, and, overall, provided similar ratings for the usefulness and interest in the future use of both types of service. Each offers, however, a different range of benefits to athletes. Athletes commented on the value of one-to-one contact, and the support provided through individual services. Group training courses, by comparison, offer a more efficient way of providing training to athletes, and, apparently, without sacrifice of service value. Group training course topics were frequently named among the most valuable services offered by ACE, and provide athletes who may be reluctant to undertake individual services an avenue to gain ACE training. In addition, group training courses provided the bulk of the services related to improving sport performance, an area popular with athletes. Regarding the improvement of group training courses, athletes commented on

the need for better targeting of the services. That is, they expressed the need for ACE to provide multi-level courses that suit the age, experience and needs of the attendees, rather than generic basic courses. The balance between individual services and group training courses appears to be an important element of ACE, in that it assists advisors to meet the diverse range of needs of elite athletes.

A small proportion of athletes commented on advisor delivery of services, and these comments were evenly balanced between praise and criticism. The comments of praise indicated that athletes appreciated the willingness of ACE staff to provide assistance at any time, and for a wide range of issues. Many of the criticisms, taken in conjunction with comments regarding the need for increased resources, may be a result of large caseloads. The opportunity exists, nevertheless, to improve the consistency of professional service delivery within ACE.

Athletes don't want ... The athletes indicated they were not interested in retirement support services. The lack of interest in retirement services is not surprising. Retirement, like injury, is something an aspiring elite athlete would be reluctant to consider. Retirement brings with it thoughts of loss of skill and of youth, and of a life without sport, probably the single most important aspect of their current lives.

The low use and usefulness ratings of retirement services may, however, be of some concern considering the high prevalence of athletes' difficulties during the retirement transition (Grove et al., 1998), and the strong relationship between the core ACE services and preparation for retirement from elite sport. One factor that might have influenced athletes regarding whether or not to use ACE retirement services may be a perception that ACE is part of the "establishment" of which the retired athlete is no longer a part. Increased promotion of the services to athletes at the time of retirement,

and at some subsequent follow up point, and a review of the content and extent of the services may be ways to improve the value of the service to athletes.

Interest in services rated less useful. The services athletes expressed interest in, and those they found useful did not necessarily coincide. Athletes indicated strong interest in some services that other athletes, who had used the services, rated as not particularly useful. These services were job contacts, sponsorship advice, travel arrangements, and financial, budget, and taxation advice. Either athlete expectations were too high, or there is an opportunity to improve the content of these services to meet the level of interest expressed by athletes.

The opposite situation also occurred. That is, some athletes expressed low interest in the future use of services that other athletes rated as particularly useful. The services involved were counselling support, and the group training courses in basic sport psychology, drugs in sport, and goal setting. A reluctance to use counselling and psychological services may be associated with a need in sport to appear mentally tough, and with the stigma society attaches to perceived mental illness and weakness and to the associated helping services. The stigma around drugs in sport, or the small number of athletes who have not yet attended such a course, may explain the low interest in this service. The low interest in goal setting training may be the result of the prevalence of such training within and outside sport. The high value that users have placed on these services, however, combined with a possible reluctance to use them, indicates that maintaining awareness of the availability of these services would be helpful for athletes.

In interpreting the results of and drawing conclusions from the present study, some care should taken in generalising to the Australian elite athlete population. Although the response rate to the questionnaire was similar to other studies (e.g., Gorely et al., 2001), less than one-third of athletes returned questionnaires, and those

respondents are likely to be those who have made most use of ACE services. In addition, the lack of participation by the Queensland Academy of Sport, the South Australian Sports Institute, and the Western Australian Institute of Sport may limit the applicability to those States, although the ACE programs operating in those States should be the same as those operating in the rest of Australia. Finally, the participation of retired athletes in future studies would provide additional information on athletes' long-term retrospective perceptions on the usefulness of ACE services.

The results, nevertheless, indicate the high value placed on ACE services by those athletes who completed the questionnaire. The results also provide ACE staff with information on the basis of which they can further enhance the services they deliver.

CHAPTER 3

STUDY TWO: EFFECTS OF A CAREERS INTERVENTION ON YOUNG AUSTRALIAN RULES FOOTBALLERS

Introduction

Defining ACE-Type Interventions

The goal of ACE is to "assist elite athletes to undertake education, vocation and personal development opportunities" (Australian Institute of Sport, 1999). Results from Study 1 indicated that the four most used individual ACE services by scholarship athletes were education guidance, career guidance, time management training, and the annual ACE interview. Career planning was rated as the second most used of the career and education-oriented group training courses. For these reasons, the purpose of the current study was to develop and administer an "ACE-type" career counselling intervention, and evaluate the changes in a range of variables for a group of elite athletes who had not previously used ACE services.

As previously discussed, advisers deliver ACE services on a targeted basis. That is, the services received by each athlete vary according to an assessment of the athlete's needs. The only ACE services delivered to large numbers of athletes are the (mandatory) annual interview, and, for all those attending a particular course, the group training courses. Apart from the annual interview, the use of ACE services varies widely among athletes, and a "generic" ACE intervention does not exist.

Key features of ACE interventions identified in the current research are that: (a) most frequent use of services is for a single session or a small number of sessions, and (b) services are delivered in both the individual and group modes. These features were, therefore, incorporated into the design of the present intervention study. To provide a consistent structure for these sessions, and to provide continuity and comparability with

previous research, the sessions were designed around the administration of the Self-Directed Search (SDS; Shears & Harvey-Beavis, 2001).

The SDS is a self-administered, self-scored vocational counselling aid that first appeared in the United States in 1971 (Shears & Harvey-Beavis, 2001). Holland (1959) argued that human personalities could be categorized under six types: realistic, investigative, artistic, social, enterprising, and conventional. The hexagonal organising structure of the six personality types is one of the most extensively replicated findings in the history of vocational psychology (Rounds, 1995). The types have been supported by comparisons to mainstream personality inventories such as the NEO Five Factor Inventory (Costa, McRae, & Holland, 1984; Fuller, Holland, & Johnston, 1999). Holland found that work environments could also be categorized using the same six types. The SDS is based on the premise that a knowledge of one's personality type can be used in vocational search to find environments that will help that person exercise their abilities and satisfy their interests and values.

Although the SDS was the basis of the intervention in the present study, the delivery and review of the SDS was augmented by an introductory workshop. Along with completion of the SDS, the workshop included exercises to orient athletes to career issues, and a diagnostic measure (the Reasons sub-scale from the Career Decision Scale [Jones, 1989]) for use in the subsequent individual session.

The workshop exercises included a discussion of the changes in life roles players might experience in the upcoming ten years, and a review of players current skills that might be transferable to future careers. The changing life roles exercise was developed by a Victorian-based ACE adviser for use in group careers discussions. The discussion focused athletes' attention on the relationships and roles they would be experiencing in ten years time compared to the roles and relationships they were experiencing at

present.

Mayocchi and Hanrahan (2000) identified a range of skills that researchers have indicated can be transferred to the work environment. They also provided a list of strategies for enhancing the likelihood of such transfer. One of the strategies was to increase athletes' awareness of the range of such skills they possessed. The introductory workshop in the present study included a discussion exercise focused on identifying transferable skills. Petitpas et al. (1992) found that retired athletes rated the transferable skills presentation of a one-day workshop on sport retirement transitions the most valuable part of the workshop.

ACE services are provided on the basis of the particular needs of the athletes. Oliver and Spokane (1988) and Larson and Majors (1998) have argued that interventions should be tailored to meet particular career difficulties. Jones' (1989) Reasons Scale from the Career Decision Profile was included in the present study to provide a diagnostic tool that would fuel discussion at the individual sessions. The Reasons Scale assesses four factors that influence people's orientation to making career decisions: self-clarity, knowledge about occupations and training, decisiveness, and career choice importance.

Outcome Variables

Previously discussed research has established the relationships between career interventions (including the SDS) and self-efficacy regarding the making of career decisions, certainty and indecision regarding career options and choice, and the number of career occupations a person is considering (e.g. Fukuyama et al., 1988; McGowan, 1977; McNeill, 1990; Oliver & Spokane, 1988; Talbot & Birk, 1979; Whiston et al., 1998; Zener & Schnuelle, 1976). In addition, Grove et al. (1997) found a relationship between the strength of athletic identity and a number of factors that influence

adjustment to retirement from elite sport (including coping processes, emotional and social adjustment, pre-retirement planning, and anxiety about career decision making).

Because of these relationships, four outcome measures were used in the present study – the Career Decision Self-Efficacy Scale – short form ("self-efficacy scale"; Betz, Klein, & Taylor, 1996), the Career Decision Scale ("decision scale"; Osipow, Carney, Winer, Yanico, & Koschier, 1976), the Occupational Alternatives Question (Zener & Schnuelle, 1976), and the Athletic Identity Measurement Scale ("athletic identity scale"; Brewer & Cornelius, 2001).

Lent and Brown (1996) described self-efficacy as the most visible of the social cognitive theory constructs in career literature. The self-efficacy scale was included in the study due to its importance as a predictor of career decision-making success, its demonstrated relationship with successful career interventions, and its usefulness as a diagnostic intervention tool. Taylor and Betz (1983) developed the long-form (50-item) self-efficacy scale to provide a measurement tool for career decision-related self-efficacy beliefs. Betz and Luzzo (1996) provided a clear description of the purpose of the self-efficacy scale. "The [scale] was designed to measure an individual's degree of belief that he or she can successfully complete tasks necessary to making career decisions" (p. 415). The 25-item self-efficacy scale was developed with a specific eye for its use "as a pre-post measure for evaluation of career interventions" (p. 415, Betz & Luzzo, 1996). Both the shorter and longer versions of the self-efficacy scale have been used extensively in career intervention research.

Although career self-efficacy in relation to particular occupations has a major mediational influence in the process of choosing a career (Betz & Hackett, 1986), it is not a measure of an individual's career decision status. That is, the results of the self-efficacy scale indicate the level of self-beliefs about the ability to make career decisions

and complete career search behaviours. They do not, however, indicate the level of career indecision or certainty a person is experiencing. The Career Decision Scale was included in the present study as a measure of how decided the participants felt in relation to their careers. The decision scale has been used extensively in career intervention research (Osipow, 1987) and researchers have established a consistent moderate relationship between the self-efficacy scale and the decision scale (and in particular the indecision subscale of the decision scale [Betz & Voyten, 1997]).

The Occupational Alternatives Question was included in the present study to provide a measure of the range and number of career options players were considering. Although the decision scale provides an indication of the level of indecision and certainty a person feels, it does not indicate what careers a person is considering, or whether a decision has been made.

As discussed in the literature review self-identity is one predictor of the success of adaptation to athletic retirement (e.g., Pearson & Petitpas, 1990; Taylor & Ogilvie, 2001). One aspect of self-identity is the strength of a person's self-identification as an athlete. Grove et al. (1997) recommended an athletic identity assessment in pre-retirement programs. The Athletic Identity Measurement Scale (Brewer & Cornelius, 2001) was included in the current study to assess the effects, if any, of the intervention on athletic identity.

Design and Hypotheses

The present study used a careers intervention with a group of elite youth footballers to assess the effects on measures of their career decision self-efficacy, career certainty and indecision, the number of career options the players were considering, and their athletic identity. Previous research indicates the following outcomes could be expected. Firstly, players in the career-counselling group should demonstrate a larger

increase in self-efficacy, than players in the control group. Secondly, all players, irrespective of group membership, should demonstrate an increase in career decision self-efficacy, and career certainty, and a decrease in career indecision. Thirdly, players in the career-counselling group should demonstrate an increase in the number of career alternatives being considered, whereas there should be no change in the number of alternatives being considered by players in the control group. Finally, although no research exists on changes in athletic identity resulting from career interventions, given the strong athletic identity of elite athletes generally, any reduction in athletic identity as a result of the intervention is likely to be small.

Method

Participants

Thirty-four players from a Melbourne-based, under-18 Australian Rules football team volunteered to participate in the study. All players were male, and 16 or 17 years of age.

Materials

Measures

Players completed four measures during their involvement in the study: the Career Decision Self-Efficacy scale - short form ("self-efficacy scale"), the Career Decision Scale ("decision scale"), the Occupational Alternatives Question ("number of alternatives"), and the Athletic Identity Measurement Scale ("athletic identity scale"). The Occupational Alternatives Question and the Athletic Identity Measurement Scale are reproduced in Appendix E. The other measures and the intervention inventories used in this study are commercial products subject to copyright, and have not been reproduced.

Career Decision Self-Efficacy Scale – short form. The self-efficacy scale (Betz et al., 1996) is a 25-item scale that measures individuals' degree of belief that they can successfully complete the tasks necessary to make career decisions. The scale was developed from the 50-item Career Decision Self-Efficacy scale (Taylor & Betz, 1983). Taylor and Betz (1983) indicated that the shorter version of the self-efficacy scale would be more useful for evaluating career counselling interventions using pre- and post-intervention measures.

Users of the inventory respond to a series of statements that describe career decision-related tasks. They indicate the amount of confidence they have that they could complete the tasks by circling a value between 0 and 9 (a 10-point Likert scale).

Respondents are provided with written instructions, a Likert scale key, and an example of how to respond. Choices range from "no confidence at all" at 0, to "complete confidence." Sample statements include ["how much confidence you have that you could"] "make a plan of your goals for the next five years," "determine what your ideal job would be," "decide what you value most in an occupation," and "identify employers, firms, institutions relevant to your career possibilities."

Betz et al. (1996) reported high internal consistency (α = .94) for the self-efficacy scale. The convergent validity values produced by Betz et al. were generally better than those produced for the original 50-item scale. They reported that the scale was moderately and significantly correlated with measures of career certainty (r = .56), indecision (r = -.56; both sub-scales of the decision scale [Osipow et al., 1976], also used in the present study and discussed below) and the identity sub-scale of Holland, Daiger, and Power's (1980) My Vocational Situation scale (r = .58). These relationships were stronger than similar relationships with the 50-item scale (r = .34 for certainty, r = -.40 to -.51 for indecision, and r = .34 for the Identity sub-scale of the My Vocational Situation scale).

Betz and Luzzo (1996) quoted internal consistency coefficients ranged from .93 to .97 for the long form version, and .93 to .94 for the shorter version. The long version demonstrated six-week test-retest reliability of .83. The long version of the measure has demonstrated consistent correlations with the two sub-scales of the decision scale. Correlation values range from -.40 to -.51 for career indecision, and from .34 to .56 for career certainty. Betz and Luzzo indicated that researchers found even stronger correlations between the short version of the self-efficacy scale and career indecision ranging from -.56 to -.62.

Research on the 50-item scale has indicated relationships between career

decision self-efficacy and career beliefs, fear of commitment, degree of indecision regarding university majors, career exploration behavior, generalised self-efficacy, and global self-esteem (Betz & Taylor, 2001). Researchers have not found the five sub-scales of the measure to be orthogonal. Betz et al. (1996) and Betz and Taylor (2001) concluded that factor analytical support for the five theoretical sub-scales was at best marginal. For this reason, only total scores were used in the present study (similar to Fukuyama et al. [1988], Kraus & Hughey [1999], and McNeill [1990]).

Career Decision Scale. The Career Decision Scale (Osipow et al., 1976) is a 19-item inventory that measures where high school and university students are in the career decision-making process (Osipow, 1987). The scale consists of two sub-scales and a single open-ended question. The first two items in the measure constitute the Certainty sub-scale - the extent of certainty of choice regarding a career or university major (e.g., "I have decided on a career and feel comfortable with it. I also know how to go about implementing my choice"). The next 16 items constitute the Indecision sub-scale and indicate the extent of indecision regarding career choice (e.g., "I want to be absolutely certain that my career choice is the 'right' one, but none of the careers I know about seem ideal for me"). Respondents indicate, by circling a number on a 4-item Likert scale, the extent to which each of the certainty and indecision scale items describe them in their thinking regarding educational and career choices. The Likert scale extends from "1" indicating "not at all like me" to "4" indicating "exactly like me." The final item in the decision scale provides respondents with the opportunity to provide a text description of themselves, if they believed none of the previous items described them.

Osipow (1987) reported that reliability studies indicated test-retest correlations of .70 for the full scale (over a period of six weeks), and from .82 to .90 for the indecision scale. The decision scale has demonstrated relationships with the

Occupational Alternatives Question and Career Decision Self-Efficacy scale, both included in the present study. Slaney (1980) compared the decision scale scores of 232 college students to their responses to the Occupational Alternatives Question. Slaney found that the decision scale scores differentiated those who had a first choice career but no alternatives from those who had a first choice and some alternatives. Decision scale scores also differentiated both these groups from students who had no first choice. Betz et al. (1996) reported correlations between the self-efficacy scale and both the certainty and indecision subscales of the decision scale. Stronger self-efficacy beliefs about making career decisions are related to greater career choice certainty and less indecision as measured by the decision scale. Betz et al. found stronger relationships for females (r = .68 and -.63 respectively) than for males (r = .31 and -.48 respectively).

Occupational Alternatives Question. The Occupational Alternatives Question (Zener & Schnuelle, 1976) consists of two parts. Respondents are first asked to "list all of the occupations you are considering right now." As the present study was intended to investigate players' post-football careers, this question was modified to read "list all of the post-football occupations you are considering right now." The respondents are then asked to indicate which occupation is their first choice, or to indicate if they are undecided.

Reliability and validity information is skant for the raw data from the Occupational Alternatives Question because the measure has been used most commonly either as part of larger questionnaires (e.g., Zener & Schnuelle, 1976), or as a method of classifying participants (e.g., Slaney, 1980).

Athletic Identity Measurement Scale. The revised Athletic Identity Measurement Scale (Brewer & Cornelius, 2001) is a 7-item scale designed to measure the construct of athletic identity. Respondents indicate the degree to which they agree or disagree with

each of seven statements using a 7-point Likert scale, anchored at the lower end with "strongly disagree," and at the upper end with "strongly agree." Sample statements include "I consider myself an athlete," "most of my friends are athletes," and "sport is the most important part of my life."

Brewer et al. (1993) demonstrated that the original 10-item scale had adequate test retest reliability (r = .89) and internal consistency (coefficient alpha = .93). Brewer et al. argued for the convergent, discriminant, and construct validity of the instrument. They found moderate correlations with instruments related to athletes' sport orientation and their perceptions of the importance of sport competence. They found no correlations with social desirability scales, or physical self-perception. They found, further, that the athletic identity scale differentiated between athletes at various levels of elite and sub-elite competition. Finally, on the basis of initial factor analysis results, Brewer et al. concluded that athletic identity was a unidimensional concept.

Brewer and Cornelius (2001) conducted a confirmatory factor analysis of the structure of the athletic identity scale, using, as a sample, 2,856 athletes and non-athletes who had completed the athletic identity scale in the course of multiple studies over the preceding ten years. Brewer and Cornelius concluded that a two-level model provided the best fit with the data. The model contained three lower-order factors (social identity, exclusivity, and negative affectivity) clustered under a higher-order factor labeled athletic identity. In arriving at the model Brewer and Cornelius discarded those items that Hale, James, and Stambulova (1999) had found problematic (items 6, 7, and 9), with the result that the revised scale contained only seven items. As a result Brewer and Cornelius proposed the use of the seven-item athletic identity scale for future research, and provided norms for the scale based on the data included in their study. Due to the overall support for the athletic identity factor, only this higher-order

variable used in the present study.

Intervention Inventories

As part of the current study, intervention-group players completed two pencil-and-paper careers inventories. The inventories provided information that formed the basis of the career discussions that occurred during the individual sessions. Players received feedback about the results from these inventories, but the data were not used in subsequent analysis.

Self-Directed Search. The Self-Directed Search (SDS; Holland et al., 2001) is a self-administered, self-scored vocational counselling aid that consists of 228 items grouped under four headings; preferred activities, competencies (technical, physical, and interpersonal), preferred occupations, and self-estimates of abilities and skills. The inventory produces a character profile by identifying the strength of the six personality types (realistic, investigative, artistic, social, enterprising, and conventional) in the individual. These personality types have a hexagonal structural relationship, with those types adjacent to each other (e.g., "artistic" and "social") demonstrating stronger relationships than those opposite each other on the hexagon (e.g., "artistic" and "conventional"). Completion of the SDS produces a 3-character personality classification that reflects, in order, the three character types most strongly represented in the participant (e.g., "SAE" indicates the strongest personality type for this participant is "social", followed by "artistic", then "enterprising"). In investigating the range of potential vocations, participants use the SDS's Occupations Finder to match this classification to occupations that carry the same or similar profile.

The Australian version of the scale was produced and validated in 1982 and first published in 1985. The second Australian edition (used in the present study) was released in 2001 (Shears & Harvey-Beavis, 2001). For the second edition, summary

scale internal consistency coefficients for male secondary school students range from .88 to .90 (Shears & Harvey-Beavis). The match between peoples' career aspirations and their personality type provided support for the concurrent validity of the inventory. Shears and Harvey-Beavis found that, for 54% of Australian male high school students, the participant's "most recent occupational daydream or aspiration" (p. 15) matched his strongest personality trait. (Such matches would occur in less than 17% of cases by chance.) This match was strongest for "realistic" personality types (68.9%), and weakest for "conventional" personality types (13.3%). The remaining types demonstrated a range of match rates from 33.3% to 52.1%. Investigation of the factor structure of the subscales indicated the existence of six factors (Shears & Harvey-Beavis).

The Career Decision Profile - Reasons Scales. The Reasons scale of the Career Decision Profile (Jones, 1989) is a 12-item scale that assesses four factors related to a person's career decision-making. Those factors are self-clarity (e.g., "I need a clearer idea of what my interests are"), occupational-educational information (e.g., "I do not feel I know enough about the occupations that I am considering"), decisiveness (e.g., "I feel relieved if someone makes a decision for me"), and choice-work salience (e.g., "I don't need to make a vocational choice at this time"). Jones indicated that test-retest reliability for the total scale was .80, with individual factor test-retest reliabilities ranging from .67 to .80. Alpha values for internal consistencies were .69 for the total scale and ranged from .68 to .78 for the factors. The factors are relatively independent with intercorrelations of $r = .17$ to .41. Jones provided convergent validity information for the factors by reporting the correlations between the factors and various measures of conceptually similar traits. Self-clarity and decisiveness were related to trait anxiety ($r =$ -.37 and -.35 respectively). In addition, self-clarity was related to the extent of identity achievement ($r = .36$). Knowledge about occupations and training, and choice-work

salience were related to career salience (r = .29 and .45 respectively).

Procedure

Volunteer participants and their parents provided written consent for the players to participate in the study (see Appendices F to H for copies of the information sheet and consent forms). Players determined the timing of their participation in the career counselling sessions, and were allocated to the intervention or control groups on the basis of this decision. The measurements and interventions occurred between November 2001 and January 2002 during pre-season training (while schools were on summer vacation). Players completed all measures during regular scheduled training times.

Measurement and Intervention Delivery

Prior to the planned career-counselling intervention, all participating players (in both the intervention and control groups) completed the first administration of the measures as a single group. After receiving verbal instructions, players completed the measures without time restriction. The verbal instructions delivered prior to the players completing the measures for the first time are included in Appendix I. Players took between 12 and 25 minutes to complete the measures.

After completion of the pre-intervention measurements by all players, each intervention group member completed a one-and-a-half-hour group careers workshop and a one-hour individual counselling session. In order to maximise participation in the group discussions and minimise disruption to training, players in the intervention group received the career-counselling intervention as members of one of two sub-groups. The only difference between these groups was in the timing of the intervention. Two days after the first administration, members of the first intervention sub-group attended the group workshop. At the completion of the workshop players scheduled times that they would meet with the researcher to complete the one-hour individual sessions that

completed the intervention program. These times were scheduled over the next five days. On the same day as the last member of the first group completed his individual session, members of the second intervention group completed their group session. Two days later the second group commenced their individual sessions, which were completed over the next four days. Group sessions occurred during regular scheduled training times. Individual sessions occurred either during regular training sessions, or at some other scheduled time, depending on player availability and preference. All group and individual sessions were completed over a period of 12 days.

Two weeks after the pre-intervention measurement, and on completion of the group and individual sessions, the full player group (both intervention sub-groups and the control group) completed the post-intervention measurement. Six weeks later, the full player group (with one exception) again completed follow-up measurements. The remaining player, who missed the final administration due to illness, completed the follow-up administration 12 days after the main group. As part of the commitment to all participating players that they would complete the career counselling program, the control group members participated in the workshop and individual sessions in the week after the follow-up measurement.

Intervention

The career counselling intervention consisted of a group session and an individual counselling session for each player. The group training session took one and a half hours, and consisted of four group discussion topics followed by the completion of two paper-and-pencil inventories. The first discussion topic served as an "ice-breaker" in which players introduced themselves and discussed their introduction to and early involvement in football. The second discussion topic encouraged players to consider the qualities and skills they brought to, or acquired through football, and how

those qualities and skills might be useful in careers after football. Players brainstormed the various factors that made them good footballers and then discussed how these factors might help them in their future careers. The players then discussed the various roles, relationships, and responsibilities in their lives at present, and how these might change in ten years time when the players were no longer playing elite football. These roles were represented graphically on a whiteboard indicating both the relative influence of each role, and the proportion of time spent supporting each role.

The final part of the workshop consisted of a brief orienting discussion about post-football career needs followed by the completion of the two pencil-and-paper inventories. The inventories were selected to assist players to identify their career preferences (the SDS [Shears & Harvey-Beavis, 2001]), and any reasons why making career decisions might be difficult (the Reasons scales from the Career Decision Profile [Jones, 1989]).

After completing the group session, each player attended a one-hour individual counselling session with the researcher. Players received the originals of their SDS and Reasons Scales inventories, along with a one-page summary of the results. The session consisted of a discussion of the results from the Reasons Scales and the SDS, and a search through the SDS Occupations Finder (Shears & Harvey-Beavis, 2001) for careers that matched each player's SDS Profile. Players listed all those careers in which they had some interest, and received information about how to find out more about these careers.

Data Analysis

Due to variations in the timing of the workshops and career counselling sessions, players in the intervention group completed the second (or "post-intervention") administration of measures anywhere from one hour after the intervention to ten days

after. That is, the data collected at the post-intervention administration does not represent the immediate impact of the career counselling intervention. They reflect, instead, the intervention effects at some point up to ten days after completion of the intervention. For this reason, data collected at the post-intervention administration have been de-emphasized in favour of the data collected at follow-up, six weeks after the second administration.

Following Andersen and Stoové (1998) and Cohen (1994), effect sizes, rather than statistical significance, have been emphasized in the analysis. Due to the small sample size and resulting limited power of the study, a reliance on achieving p values of $<.05$ is likely to result in Type II errors and key findings being overlooked. The outcomes of inferential statistics have, nevertheless, been included. The Publication Manual of the American Psychological Association (2001) recommends the use of univariate rather than omnibus measures of effect size in the reporting of results. For this reason Cohen's d has been used in this analysis in preference to η^2.

Huck and McLean (1975) recommended the use of gain scores or ANCOVAs, rather than mixed-design repeated-measures ANOVAs, as more sensitive and accurate measures of changes that occur in an intervention group as a result of intervention. They argued that the results of an F test for the "time" variable in a pre-test post-test experimental design "are worthless from an experimental point of view" (p. 515). They argued that the interaction effect for time and intervention represents the effect only of the intervention. Thus, the interaction term steals variance from the main effect. Huck and McLean contended that the results could be more accurately evaluated by comparing the change (or gain) scores of the two groups, or partialling out pre-test score differences through the use of an ANCOVA. In the present analysis ANCOVAs have been used for all relevant multivariate analyses.

Results

Data Screening

The data for all measures were normally distributed. Boxplots revealed outlier values for the Career Decision Self-Efficacy scale - short form ("self-efficacy scale"), the Indecision subscale of the Career Decision Scale ("indecision subscale"), the number of career alternatives listed in the Occupational Alternatives Question, and the Athletic Identity Measurement Scale ("athletic identity scale"). After consideration of the other data provided by the five participants with outlier values, two of the participants' data were not included in further analysis. The pattern of responding for these two participants indicated they might not have taken the measures sufficiently seriously. As a result the total sample size was reduced to 32, with 16 players in each of the control and intervention groups.

Table 18 presents the means and standard deviations for the intervention and control groups (combined and separately) for the self-efficacy scale, the certainty subscale of the Career Decision Scale ("certainty subscale"), the indecision subscale, and the athletic identity scale, at baseline and follow-up. At baseline, the total player group ($M = 145.7$, $SD = 20.7$) demonstrated weaker career decision self-efficacy than the 81 male first-year psychology students who participated in the validation study of the self-efficacy scale ($M = 184.6$, $SD = 27.7$; Betz et al., 1996), $t\ (111) = 8.1$, $p < .05$. (Possible self-efficacy scale scores range from 0 to 225.)

The certainty subscale mean for the total player group of 4.9 placed the players at approximately the 40th percentile of a United States twelfth-grade male high school students (Osipow, 1987). The players' indecision subscale mean of 36.7 indicated their mean scores fell between the 78th and 86th percentiles of the student group for career choice indecision.

Table 18

Means and Standard Deviations for CDSE, CDS1, CDS2, and AIMS at Pretest and Follow Up

	CDSE [a]		CDS1 [b]		CDS2 [c]		AIMS [d]	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Total group ($N = 32$)								
Baseline	145.7	20.7	4.9	1.3	36.7	8.4	40.9	4.9
Intervention group ($n = 16$)								
Baseline	144.4	24.8	5.1	0.9	37.7	9.2	41.5	4.8
Follow up	160.9	21.0	5.4	1.1	36.6	6.5	42.3	4.9
Control group ($n = 16$)								
Baseline	147.1	16.2	4.8	1.6	35.8	7.7	40.3	5.0
Follow up	157.4	22.1	4.9	2.0	35.8	7.5	39.6	5.8

Notes: [a] Career Decision Self-Efficacy scale - short form (higher value indicates greater self-efficacy)
[b] Career Decision Scale – Certainty subscale (higher value indicates greater certainty)
[c] Career Decision Scale – Indecision subscale (higher value indicates greater indecision)
[d] Athletic Identity Measurement Scale (higher value indicates stronger athletic identity)

The mean athletic identity scale scores indicate the group had relatively strong athletic identity. The mean scores of between 39 and 42 indicate that the players had, on average, an athletic identity between the 50th and 70th percentile of male athletes (Brewer & Cornelius, 2001). (These scores were above the 90th percentile for non-athlete males.) The players' lowest and highest athletic identity

scale scores (29 and 49 respectively) fell at the 10th and 100th percentiles of male athletes (and above the 55th percentile compared to non-athlete males).

Table 19 presents summary information for the Occupational Alternatives Question. At baseline the overall player group were able to list an average of 3.7 occupations that they were considering as possible career alternatives. Of these, an average of 2.3 of the alternatives were sport-related careers. Eighteen of the 32 players (56%) expressed a first choice of career. Of those who expressed a first choice, all but one (i.e., 94%) of those choices were sport-related careers.

Comparison of players' baseline scores revealed no differences between the intervention and control groups on any of the measures. Differences ranged from d = .09, p = .79 to d = .24, p = .50.

Table 20 displays the relationships at baseline between the self-efficacy, certainty, indecision, and athletic identity scales, the number of alternatives, and the number of sport alternatives. The strongest relationship (r = .63, p < .01) existed between the measures of the number of occupational alternatives players were considering (i.e., the number of alternatives and the number of sport alternatives). Players considering higher numbers of sport-related career alternatives tended to experience slightly higher levels of career indecision. A weak relationship existed between the overall number of careers players were considering (number of alternatives) and the level of their career indecision (indecision subscale, r = .22, p = .22). A stronger relationship, however, existed between the number of sport careers players were considering and career indecision (r = .33, p = .06). Similar relationships did not exist between the number of career alternatives and either of career certainty or career self-efficacy.

Table 19

Means, Standard Deviations, Counts, and Percentages for Responses to the Occupational Alternatives Question (OAQ) at Pretest and Follow Up

	OAQ1[a]		OAQ1a[b]		OAQ2		OAQ2a	
	M	*SD*	*M*	*SD*	Number[c]	%age[d]	Number[e]	%age[f]
Total group (n = 32)								
Baseline	3.7	1.3	2.3	1.5	18	56%	17	94%
Intervention group (n = 16)								
Baseline	3.6	1.4	2.3	1.4	8	50%	8	100%
Follow up	3.3	0.9	2.1	1.4	9	56%	9	100%
Control group (n = 16)								
Baseline	3.8	1.3	2.4	1.7	10	63%	9	90%
Follow up	3.8	1.0	2.6	1.5	9	56%	8	89%

Notes:
[a] number of career alternatives
[b] number of sport-related career alternatives
[c] number of players who expressed a first choice of career
[d] percentage of players who expressed a first choice
[e] number of players whose first choice career is sport-related
[f] percentage first choices that were sport-related

Table 20

Intercorrelation Table at Pretest for CDSE, CDS1, CDS2, OAQ1, OAQ1a, and AIMS

Measure	CDS1	CDS2	OAQ1	OAQ1a	AIMS [f]
CDSE [a]	.322	-.282	.152	.064	.282
CDS1 [b]		-.307	.026	-.055	-.083
CDS2 [c]			.223	.334	.177
OAQ1 [d]				.630*	.092
OAQ1a [e]					.346

Notes: * $p < .01$
[a] Career Decision Self-Efficacy scale – short form
[b] Career Decision Scale – Certainty subscale
[c] Career Decision Scale – Indecision subscale
[d] Occupational Alternatives Question – number of alternatives
[e] Occupational Alternatives Question – number of sport-related alternatives
[f] Athletic Identity Measurement Scale (7-item)

Comparisons between whether players had chosen preferred careers (from their responses to the Occupational Alternatives Question) and their scores on the self-efficacy scale, and certainty subscale, indicated moderate relationships between having a preferred career and career indecision ($r_s = -.54, p < .01$) and career certainty ($r_s = .46, p < .01$). That is, those players demonstrating relatively higher career certainty and lower career indecision were more likely to have a preferred career. None of the other measures demonstrated relationships with whether players had made a career decision ($r_s < .15$).

Weak relationships existed between athletic identity and career self-efficacy ($r = .28, p = .12$), and the number of sports careers players were considering ($r = .35$, $p = .05$). That is, players who demonstrated stronger athletic identity also tended to

demonstrate greater career self-efficacy, and were considering a larger number of sport career alternatives than their counterparts.

Self-efficacy, certainty, and indecision were interrelated only weakly. The negative correlation values for the indecision subscale with the certainty subscale and the self-efficacy scale indicate that higher career indecision is related to lower self-efficacy and lower certainty. A MANCOVA (with baseline scores as co-variates) of the three related career measures (the self-efficacy, the certainty, and the indecision subscales) indicated that group membership exerted a small to moderate influence on the common factor shared by these measures ($\eta^2 = .04$, $F(31) = .37$, $p = .77$). The indecision subscale scores did not contribute to the prediction of group membership ($\eta^2 < .001$), whereas the self-efficacy and certainty subscale scores were weak predictors ($\eta^2 = .03$ and .02 respectively).

Although researchers have provided consistent support for a relationship between career self-efficacy, indecision, and certainty (e.g., Betz et al., 1996; Betz & Luzzo, 1996) the results from multivariate analysis do not appear to provide any better information than that provided through univariate analysis. That is, the univariate and multivariate analyses produced similar patterns of results. For this reason, and for the sake of simplicity, the univariate results are reported below.

Intervention Effects

Table 21 presents the effect sizes of players' change scores between baseline and follow-up for the self-efficacy scale, certainty subscale, indecision subscale, number of alternatives, number of sport alternatives, and athletic identity scale. The changes that occurred in control group scores represent the influence of providing the information required to complete the three administrations of the study measures, and of any other influences that would have affected the scores of both groups.

Intervention group change scores represent, in addition to the influence of factors affecting control group, the additional influence of the group and individual career counselling sessions undertaken by the intervention group members only. The difference between intervention group and control group change scores represents the effects of the intervention group treatment.

Table 21

Effect Sizes (Cohen's d) of Change Scores for Experimental and Control Groups Between Baseline and Follow Up

Measurement scale	Intervention group [a] (n = 16)	Control group [a] (n = 16)	Difference [a]
CDSE [b]	1.17	.51	.66
CDS – Certainty [c]	.26	.10	.16
CDS – Indecision [d]	-.17	-.01	-.18
OAQ - alternatives [e]	-.30	.07	-.37
OAQ - sport alternatives [f]	-.12	.29	-.41
AIMS [g]	.29	-.23	.52

Notes: [a] Cohen's d - positive indicates the group increased its mean score
[b] Career Decision Self-Efficacy scale – short form
[c] Career Decision Scale – Certainty subscale
[d] Career Decision Scale – Indecision subscale
[e] Occupational Alternatives Question – number of alternatives
[f] Occupational Alternatives Question – number of sport-related alternatives
[g] Athletic Identity Measurement Scale (7-item)

The career counselling sessions undertaken by the intervention group resulted in a moderate to large increase (d = .66) in players career decision-making self-efficacy over and above the increase experienced by the control group, F (1,31) =

.85, p = .36. Whereas players in the control group experienced a moderate increase in career self-efficacy (d = .51), players in the intervention group experienced a very large increase (d = 1.17).

Players also experienced a small change in the number of career alternatives (d = -.37, F [1,31] = 3.67, p = .07), and sport-related career alternatives (d = -.41, F [1,31] = 1.49, p = .23) they were considering. Despite the moderate statistical size of the effect, the differences amounted to, on average, 0.3 alternatives or less. Players in the intervention group were considering fewer career alternatives at follow-up than those in the control group. Players in the control group showed no change in the number of career alternatives, and small increases in the number of sport career alternatives they were considering. Intervention group results indicated that players experienced a small decrease in the numbers of total and sport alternatives.

Despite changes in career self-efficacy and the number of career alternatives under consideration, only minimal differences existed at follow-up between changes in the intervention and control groups in career certainty (d = .16, F [1,31] = .29, p = .59) and indecision (d = -.18, F [1,31] = .06, p = .81). Inclusion in the intervention group intervention resulted, however, in comparatively stronger athletic identity (d = .52, F [1.31] = 2.29, p = .14). Whereas the athletic identity of players in the control group weakened slightly (d = -.23), players in the intervention group experienced a small increase in the strength of their athletic identity (d = .29).

Approximately half the players in both intervention and control groups indicated they had decided on post-football careers, and participation in the study had little effect on the numbers of decided players. Whereas the number of decided players in the intervention group increased from 8 at baseline to 9 at follow-up, the number of decided players in the control group decreased from 10 to 9. At both

baseline and follow-up all the decided players in the intervention group chose sport-related careers, as did all but one of the control group members.

In summary, participation in either the control or the intervention group resulted in a moderate increase in career decision self-efficacy, a small increase in the number of sport-related occupational alternatives being considered, and a small decrease in the players' athletic identity. In addition to the changes that occurred to all players, inclusion in the intervention group resulted in a further increase in the player's career decision self-efficacy. Intervention group members also experienced a small decrease in the number of occupational alternatives they were considering and an increase in the strength of their athletic identities sufficient to outweigh the opposite effects that occurred as a result of participation in the study alone. Participation in the study did not appear to influence whether a player had decided on a career, or whether that career was sport-related. Almost all the players who indicated they had decided on a career had chosen sport-related careers.

Other Data

Post-intervention data. As previously discussed, data collected immediately after completion of the intervention group intervention (the "post-intervention" administration) have been de-emphasized in analysis. Figure 7 displays the effect sizes of the change-score differences between the intervention and control groups for career self-efficacy, career certainty and indecision, the number of career alternatives, and athletic identity. Although the data provided from the post-intervention administration is not as strong as that provided at follow-up, these change-score differences indicated that the effects of the intervention continued to influence players for some time after completion of the intervention itself.

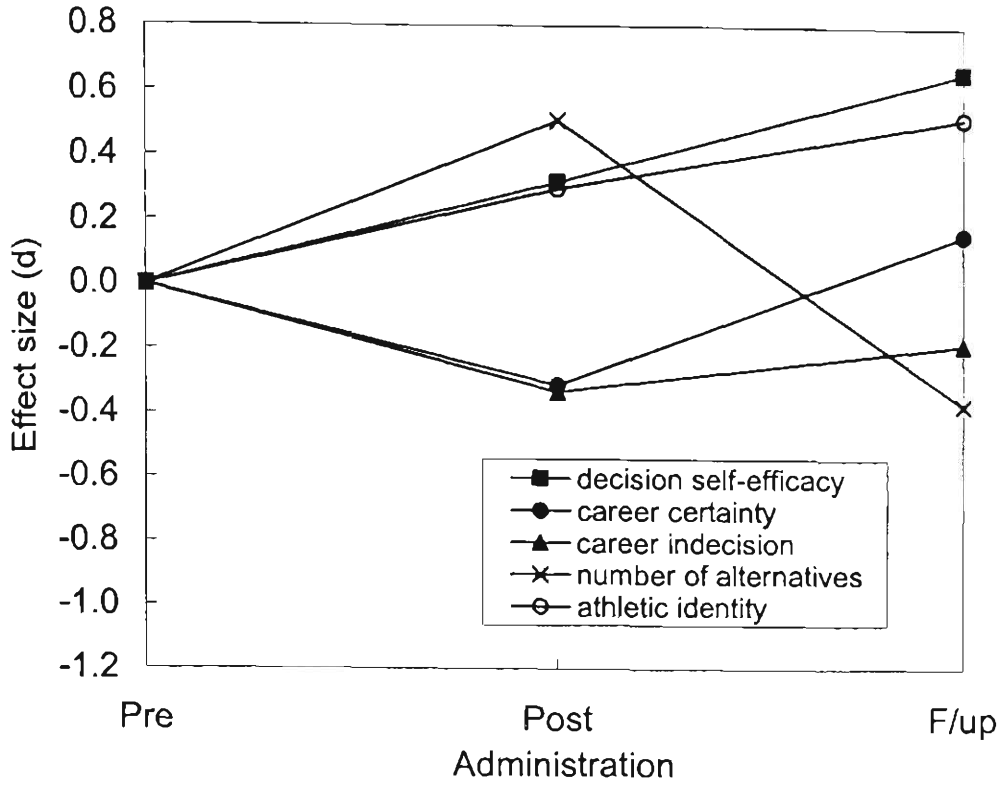

Figure 7. Effect sizes for differences in change scores between intervention and control groups on career and athletic identity measures.

Changes in the career self-efficacy and athletic identity were linear and cumulative. That is, the strengthening of career self-efficacy and athletic identity continued in the period immediately following intervention such that the effects were approximately doubled at the time of the follow-up measurement. Career certainty, career indecision, and a number of occupational alternatives being considered demonstrated reversals between the post-intervention administration and follow-up administration. Career certainty and career indecision demonstrated a waning of the post-intervention effect, such that at follow-up the overall change was negligible.

The reversal in the number of occupational alternatives players were considering was more dramatic. Scores on the number of alternatives at the post-intervention administration indicated a moderate increase over baseline in the

number of alternatives players were considering. At follow-up, however, players were considering slightly fewer alternatives than at baseline.

Textual responses to the Career Decision Scale. If players considered that none of the previous 18 items in the Career Decision Scale provided an adequate description, the final item of the scale provided them with the opportunity to describe themselves in text. Four players responded to this question in all three administrations. Three of these players indicated they were confident about making a career choice, or had a specific career direction (e.g. "I feel reasonably confident in making a career choice," "I like to make things out of wood"). The fourth player indicated he had not thought about his career choice, and would need more career information to make a decision.

A further four players responded to the question in one of the three administrations. All four players indicated the career direction that interested them. Two of the players expressed uncertainty about whether their area of interest could provide a career for them. The remaining two players indicated no uncertainty regarding a career direction, and one indicated he had taken steps to securing his intended career.

Players appear to have used this question to augment, rather than replace, the information provided elsewhere in the Career Decision Scale regarding their career certainty and indecision. All these players provided complete responses to the other questions in the Career Decision Scale.

Outliers. Testing of results with and without outlier data indicated that including outlier scores changed the self-efficacy scale effect sizes. That is, inclusion of outlier data reduced the size of the increase in self-efficacy in the control group from a moderate to small, and increased the already very large gain in self-efficacy in

the intervention group. As a result, the effect of the intervention group intervention would have increased from $d = .66$ (see Table 21) to $d = .89$. Results from all other measures were not materially affected by the inclusion or exclusion of outlier data.

Discussion

The brief careers intervention undertaken by a group of young footballers resulted in changes in the players' career self-beliefs. As expected, players in the career-counselling group demonstrated a larger increase in post-intervention career decision self-efficacy than the control group, who experienced a moderate increase in self-efficacy. Both groups, therefore, became more confident in their ability to make decisions about their post-football careers, but those who undertook career-counselling experienced a greater increase. Contrary to expectations, players in both groups demonstrated no change in career certainty or career indecision. That is, in spite of feeling more confident about their ability to make career decisions, the players were no more certain of their future careers, and no less undecided, than prior to the study. In spite of participating in tasks that were likely to increase their awareness of the range of career options, players in the intervention group experienced a small and negative change in the number of career alternatives players were considering. Finally, only small changes occurred in either group in the strength of their athletic identity, although the direction of the changes was unexpected. The athletic identity of the intervention group increased slightly, whereas the identity of the control group weakened slightly.

Consistent with McNeill (1990), and the meta-analyses of Oliver and Spokane (1988) and Whiston et al. (1998), players in the career counselling group demonstrated a greater change in the career measures than their control group counterparts. In addition, all participants in the study, irrespective of group membership, gained some benefit. That is, brief careers interventions, such as the "ACE-type" intervention of the current study, appear to be helpful for this group of footballers (as they have been for other groups). Furthermore, mere exposure to career questions, such as those contained in the present study's measures, can bring about positive changes in career decision self-

efficacy (as indicated in McNeill's findings). This latter point, that the athletes gained simply as a result of completing the measures, may indicate that the annual ACE interview has some value in stimulating career-related thinking in athletes. Given that the annual interview is the most widely used of the ACE services, such a finding provides useful support for its value.

Although the established relationship between career decision self-efficacy and career indecision and certainty received further support, unlike McNeill's (1990) participants, the current group of players demonstrated no change in career indecision and career certainty. This inconsistency between the studies may be the result of a number of differences between the participants. McNeill's participants were, on average, three years older (19 to 20 year-olds are likely to have had to make more decisions regarding career directions than 16 to 17 year-olds), an academic- rather than an athletic-based group, and of mixed gender (11 male and 22 female). Although there is limited research into the differential effectiveness of careers interventions regarding gender, there is some indication (e.g., Kraus & Hughey, 1999) that males and females may not make the same gains from careers interventions. That the footballers did not gain on measures of certainty and indecision may also be due to their focus on sport-related careers, and the lack of perceived proximity of having to make a post-football career decision. University students who have not yet decided on a major (such as a number of those in McNeill's [1990] study) may not have the benefit of a career focus, and may be acutely aware of the need to make a decision. As a result, although the students may have felt capable of making a decision (higher self-efficacy), the intervention may have been helpful in making that choice. Any differences between the educational systems and the social construction of education in Australia and the United States may also have had an impact on the relative effectiveness of the interventions.

Comparing the results at baseline and follow-up, the players in the intervention group experienced a small reduction in the number of career options they were considering. Given that the Self-Directed Search (Holland et al., 2001) was used with players to help them expand the range of options that matched their interests and abilities, players were expected to have increased number of options after completing the career-counselling intervention. Based on the high AIMS scores and the relatively young age of the respondents, however, it is not surprising that the athletes demonstrated a clear preference for sports-related careers and a reluctance to expand these options. The AIMS scores and the lack of change in the number of career options may be evidence of high levels of identity foreclosure and a resulting unwillingness to explore further career options.

The players in the intervention group did, however, demonstrate a pattern of change over time. Immediately after the intervention, players in the career-counselling group had demonstrated a small to moderate increase in the number of career alternatives (d = .37). At follow-up, six weeks later, however, the effect had reversed and the players demonstrated a small decrease (below baseline) in the number of alternatives (d = -.30). The pattern of change may be explained by the players initially considering additional choices, but ultimately narrowing their options as unsatisfactory choices were eliminated over time and their career foci developed further. Previous research provides no comparable information as the number of career options in these studies is measured only twice (at pre- and post-intervention).

The results provide some support for the ongoing influence of a brief intervention. Whereas there were weak indications of a pattern of change over time in the number of career alternatives players were considering, the increasing gains in career decision self-efficacy provided further and stronger support for the longer-term

effect of the intervention. At post-intervention, the self-efficacy gains of both the career-counselling and the control groups were approximately half those that were measured at follow-up six weeks later. That is, the gains increased over time.

This result has implications for the understanding of, and research on the effects of careers interventions. Players continued to derive benefit from a careers intervention for a considerable period. Possibly they were, consciously or unconsciously, continuing to process the thoughts and ideas that they gained from the course. In researching the effects of such interventions, the timing of measurements should be designed to determine both the immediate and the longer-term effects.

Although athletic identity demonstrated a similar pattern of increase over time, the changes were only small. A careers intervention intended to expand the range of career alternatives a player was considering might be expected to reduce the player's emphasis on his sporting identity. The effect size of the increase in the career counselling groups' athletic identity (compared to the control group) of $d = .52$ amounts to no more than 1.5 points on a 42-point scale. The statistical magnitude of this effect size was due to the unexpected direction of the changes, and the lack of variability in the data, rather than a meaningful change. Whereas the career-counselling group demonstrated a small increase in athletic identity, the control group demonstrated a small decrease. That is, participation in the study, whether as a member of the intervention group or the control group, resulted in no meaningful long-term changes in the players' strong athletic identities.

The small size of the increase in the career-counselling groups' athletic identity (0.8 points on a 42-point scale), nevertheless, warrants some discussion.The results may be due in part to a "ceiling effect." That is, because the players' athletic identities were already extremely strong (between the 50th and 70th percentile of male athletes and

above the 90th percentile for non-athlete males [Brewer & Cornelius, 2001]), it may have been difficult to strengthen that identity. The small increase in athletic identity of the career-counselling group may have been due to the realization by many of these players that their post-football careers were strongly sport-oriented. For this group of players, between 62% and 69% of the career alternatives that players were considering were sport-related (e.g., sports administrator, personal trainer, physiotherapist, sports manager) irrespective of the time of measurement or the player group. Of those who indicated they had decided on a career, all the players but one had decided on sport-related careers.

A brief careers intervention did not reduce players' athletic identity, but did increase the players' self-belief in their abilities to make career decisions. This finding has implications for design of careers interventions, and the perception of their effects. The present study included an exercise in the introductory workshop designed to increase players' awareness of the changing emphases of their life roles over time. In addition, the principal activity, the completion and discussion of the Self-Directed Search, was intended to help players explore the range of alternative careers they might consider. The players, however, did not change their perceptions of themselves as athletes. Neither did they change the range of options they were considering, nor the level of indecision they were experiencing. The athletes appeared, instead, to gain confidence in their abilities to deal with career decisions when those decisions might arise. That is, the intervention has probably had little effect on players' behaviors in the present, but appears to have helped players acquire skills and beliefs that could assist them in making career decisions in the future. The career counselling intervention appears to have addressed one of the problems encountered by retired jockeys in the research by Speed et al. (2001) - their lack of confidence and knowledge related to job

search tasks.

These results may encourage intervention designers to focus on the acquisition of such skills and beliefs, and not become despondent when athletes remain firmly sports-oriented, particularly with young athletes such as those in the present study. Despite their continuing sports orientation, athletes may still gain from participation in careers-oriented programs. Likewise, these results may provide some comfort to sport administrators and coaches that such interventions do not compromise player focus. Coaches and sports administrators may fear that player involvement in careers programs might distract them from their playing and training responsibilities, or reduce their motivation for sport performance (similar to the coach of the San Francisco 49ers described in Ogilvie & Howe [1983]). The current results suggest that this fear may not be grounded in any reality.

The present study can only be considered preliminary, and the results should be interpreted with caution, particularly in relation to any generalisation to the greater athlete population. The size of the sample was insufficient to generate statistical significance for even moderate effect sizes. Replication with other athlete groups may provide support for the findings of the study. In addition, the participant group of players may have been influenced by the strong support of the club and parents for the study. There were no dropouts from the program. This is perhaps an unusual result from a group of sports-minded male teenagers. Some participating players may have had little interest in the careers intervention, but may have been, or remained, involved due to the interest of parents or the club. If these players gained little from the involvement in the study, their results may have obscured the effects of the intervention on more interested players.

Finally, due to targeted service delivery of ACE, athletes who use ACE do not

complete a fixed program such as that used in the present study. Their programs are personalised, providing the athletes with the opportunity to select those services they believe will be of the most use. That is, ACE services may be more effective than the results of the present study indicate. Given the possibility of both over- and under-estimating the valuable influence of the service, generalisation of the results of the study to ACE should be undertaken with caution.

The present study does, however, provide an indication that careers interventions, already established as effective in non-athletic groups (e.g., Whiston et al., 1998), can be valuable for athletes' career development. The strength of athletic identity in elite athletes is, however, unlikely to be affected by something as peripheral to their focus as a brief careers intervention, especially when delivered early on in their sporting career.

CHAPTER 4

STUDY THREE: ADVISORS' PERCEPTIONS OF ACE ADVISOR TRAINING

Introduction

The effectiveness of much of ACE depends on the individual skills of the service providers -- the ACE advisors. Although athletes are better placed to provide feedback on the value of services to themselves, ACE advisors can provide information on their perceptions of the quality of the training, the value of that training in their work with athletes.

Advisor training has been included within the ACE structure since 1995. Training was provided through the AIS in the form of a Graduate Certificate in Athlete Career and Education Management, and graduates completed the majority of the course through distance education. Since 2001, the Graduate Certificate has been delivered, in conjunction with the AIS, through a higher education university. The program was re-accredited in 2002 to widen the applicability of training to elite performers in music and dance as well as sport.

The particular focus of the present exploratory study was the relationship graduates of ACE advisor training perceived between the training they received and their applied work with athletes. Graduates who participated in the study completed their training under the original course at the AIS, and prior to the program's re-accreditation. The present study involved advisor-graduates providing their perceptions of the usefulness of the skills and knowledge taught within the program, and the methods of training delivery. The study also involved graduates identifying areas where credit was given in recognition of prior learning (RPL), and the other skills and knowledge that they perceived to be useful in their applied work, but which were not included in the ACE advisor training program.

Method

Participants

All 35 graduates of the training program for ACE advisors as of May 2001 were eligible to participate in the study, and received questionnaires in the mail. Graduates resided in Australia (n = 23), Great Britain (n = 7), or New Zealand (n = 5). Of the 35 ACE advisors who were sent questionnaires, 15 (42.9%) provided usable responses: five (71.4%) from Great Britain, four (80.0%) from New Zealand, and six (26.1%) from Australia.

Materials

Advisors received a questionnaire, a covering letter, an information sheet, and an addressed and reply-paid envelope. Copies of the documents are included in Appendices J to L.

The questionnaire consisted of four sections. In the first section, advisors provided information about subjects that constituted the training program. The 16 subjects grouped under four overall modules: sport in Australia/Great Britain/New Zealand (four subjects), counselling issues (four subjects), the ACE program (five subjects), and the ACE practicum (three subjects). For each subject, advisors either indicated that they had received RPL for the subject, or provided two ratings regarding, respectively, the usefulness of the subject in ACE work with athletes, and its usefulness in building knowledge and skills. To indicate their ratings, advisors circled a number ranging from 0 ("not useful") to 3 ("very useful").

In Section 2 of the questionnaire, advisors provided ratings of the resources and training methods employed in the program. Advisors used the previously described rating system to indicate the usefulness of the methods in building ACE knowledge and skills. Analysis of the content and requirements for each subject indicated that the

training methods employed could be grouped under four general headings: writing and researching assignments, observation of counselling sessions, practical exercises, and supervised counselling practice. In addition, advisors provided usefulness ratings for the resources and reference lists included in the material provided with each subject.

The third section contained four questions regarding skills and knowledge useful in ACE work with athletes that had not been listed in the previous two sections. Advisors were asked to describe other useful and not useful aspects of the training program, and skills, knowledge, and experiences acquired outside the ACE training program.

Advisors provided general demographic information in Section 4 of the questionnaire, including their age, gender, the completion date of their training, their principal current occupation, and the number of years working with athletes in an athlete career education-related role. In this final section advisors were thanked for their participation, and reminded to return the survey in the reply paid envelope.

Procedure

The general manager for ACE at the Australian Institute of Sport provided a list of all ACE advisor training graduates, along with mailing addresses for Australian graduates, and email addresses for graduates from New Zealand and Great Britain. Overseas advisors' addresses were obtained through direct email contact.

In June 2001, questionnaires were mailed to the 35 advisors. A second mail out was completed in August 2001 to the 20 advisors who had not responded to that point. No responses were received from the second mail out.

Data Analysis

As the study was primarily exploratory, descriptive statistics were used for the analysis of numerical data. As the sample represented 100% of the graduate ACE

advisor population, the data required no inferential statistical analysis. Textual data was analysed using NUDIST Vivo qualitative data analysis software. Responses to the open-ended questions were coded into categories and then grouped under higher-order themes (Minichiello et al, 1995). A second researcher, knowledgeable in the area and experienced in coding techniques, then reviewed the responses and produced a list of themes that were matched to the initial coding. Where discrepancies occurred, the two researchers agreed the final codes through discussion.

Results

This section presents first the demographic data provided by the advisors. After a description of recognition of prior learning credits, the section presents a summary of the advisors' ratings for each course subject regarding its applied value in work with athletes, and its usefulness in building knowledge and skills. The fourth part of the section provides an analysis of the participants' ratings of the effectiveness of various training methods used in ACE advisor training. The final part presents an analysis of advisors' responses to the open-ended questions.

Demographics

The responding advisors had a mean age of 38.0 years (SD = 10.0 years), with a range between 25 years and 60 years. Of the 15 respondents, 10 were female and 5 were male. All the advisors had completed the training recently. Eleven advisors (68.8%) completed their training within the past 12 to 18 months, and 3 within the last 18 to 36 months. One respondent did not indicate a completion date.

The advisors had spent a median of 3.0 years working in athlete career education-related roles, with a range of 0.5 to 25.0 years. This distribution had a strong positive skew. At the time of participation in this study, most of the advisors were working in an ACE role (n = 8) or a sport related role (n = 2). The remaining five respondents described their current roles, respectively, as an "issues manager," a "freelance," an education administrator, a human resources practitioner, and a psychologist.

Recognition of Prior Learning

ACE advisor training consists of 4 modules covering 16 subjects. At the completion of the course, the 15 advisors had received credit for a total of 240 subjects. Advisors received RPL credits for substantial portions of the course. Only one advisor

received no RPL credit and completed all the subjects of the program. Advisors received RPL credit for, on average, 45% of the subjects. Table 22 provides an analysis of the percentages of subjects credited to advisors in each country through RPL. Overall, advisors received RPL credits for approximately half of the subjects in each of three topics (structure of sport, the athlete career education program, and the ACE practicum), and 35% of the counselling subjects. New Zealand advisors received the most prior learning credit, having gained 77% of the subjects through RPL compared to 39% for Australian advisors, and 29% for British advisors.

Table 22

Percentage of Subjects Awarded Through Recognition of Prior Learning (RPL)

Country	%age RPL				
	Structure of Sport	Counselling Issues	ACE Program	ACE Practicum	Total
Australia	33	42	43	33	39
Great Britain	30	15	32	40	29
New Zealand	100	50	80	75	77
Total	50	35	49	47	45

The extent of RPL usage is not related to the average usefulness ratings provided by the advisors ($r = 0.04$). That is, the mean usefulness rating for subjects provided by each advisor demonstrated no consistent pattern of relationship with the number of subjects credited through RPL.

Usefulness Ratings

Overall, advisors gave high ratings of the usefulness of the training they received. Advisors rated at least 75% of the subjects in each module as "moderately useful" or "very useful."

Advisors provided ratings for each subject in respect of its applied value and its usefulness in building relevant knowledge and skills. Advisor ratings for "usefulness in working with athletes", and "usefulness in building knowledge and skills" were related ($r = .67$). This indicated that although, as expected, the ratings demonstrated a moderate to strong relationship, advisors differentiated between the value of the knowledge and skill base provided by the course and the course's applied value when working with athletes.

Advisors provided 247 such ratings for subjects they had completed without RPL. Of these ratings, 124 were "very useful" ratings (50%), and 81 "moderately useful" ratings (33%). That is, advisors rated 83% of the completed subjects as being at least moderately useful in respect of either their applied value or their knowledge-and-skill-building value. Only 11 (4%) of the ratings indicated the advisors found subjects "not useful," and a further 31 (13%) were regarded as "a little useful."

Individual advisors varied in their overall assessment of the usefulness of the training. Three advisors rated all the training that they received as "very useful" - an average rating of 3.0 (on a scale from 0 [not useful] to 3 [very useful]). A further three advisors rated their training as only "a little useful" with average ratings of between 1.2 and 1.5. The mean overall usefulness rating was 2.3.

Due to the high overall usefulness ratings, differentiation between the relative usefulness of the individual subjects proved difficult. The ordering of the subjects on the basis of ratings of "moderately useful" or better was quite different to an ordering based

on only "very useful" ratings. To differentiate the most highly rated subjects from those that received a proportion of low ratings, the subjects have been ordered based on their "very useful" ratings, and the results are presented in Tables 23 and 24.

Table 23 provides a summary of advisors' ratings in respect of each subject's usefulness in ACE work with athletes ("applied usefulness"). More than half of the advisors gave "very useful" ratings for 9 of the 15 subjects. The highest-rated subject was "athlete issues," which advisors rated unanimously as "very useful." In addition, "very useful" ratings accounted for 80% of the advisor ratings for the industry practicum subject. Advisors provided the least favourable ratings for "education planning", "workplace safety", "ACE administration", and "instruction principles and practice".

Subject ratings for usefulness in building knowledge and skills ("knowledge and skill value") were generally lower than those for usefulness in ACE work with athletes. Table 24 presents a summary of these results. Only six subjects received "very useful" knowledge and skill ratings from 50% or more of advisors. Once again, "athlete issues" was ranked highest, receiving unanimous "very useful" ratings.

Advisor ratings also provided an overall picture of the usefulness of the four course modules: structure of sport in Australia/Great Britain/New Zealand, counselling issues in athlete career education, the Athlete Career Education program, and the ACE practicum. Table 25 provides a summary of these ratings. The counselling module was rated the most useful, with 61% of advisors rating the module "very useful," and 90% rating the module as at least "moderately useful." Advisors were least satisfied with the ACE practicum module with nearly one quarter of advisors rated this module as no more than "a little useful," with 13% rating the module as "not useful."

Table 23

Advisors' "Applied Value" Ratings of ACE Advisor Training Subjects

Subject [a]	Percentage usefulness rating [b]			
	very	moderately	a little	not
Athlete issues	100	0	0	0
Industry practicum	80	10	10	0
National, Commonwealth, and Olympic representation	71	14	14	0
ACE assessment	67	33	0	0
Role of the parent in sport	63	25	13	0
Presenting reports	60	20	0	20
The process of career counselling	58	33	8	0
Career planning	56	22	22	0
Structure of sport	50	17	33	0
ACE administration	50	38	13	0
Theories in career counselling	46	46	8	0
Working with sporting groups	40	60	0	0
Instruction principles and practice	33	33	33	0
Education planning	25	50	25	0
Induction	9	82	0	9
Workplace safety	0	43	14	43

Notes: [a] Sorted into descending order on "very" useful rating
[b] Expressed as a percentage of the number of ratings supplied

Table 24

Advisors' "Knowledge and Skills Value" Ratings of ACE Advisor Training Subjects

Subject [a]	Percentage usefulness rating [b]			
	very	moderately	a little	not
Athlete issues	100	0	0	0
Structure of sport	67	17	0	17
Theories in career counselling	67	17	8	8
Industry practicum	64	36	0	0
Career planning	60	20	10	10
National, Commonwealth, and Olympic representation	57	43	0	0
The process of career counselling	45	36	18	0
Working with sporting groups	40	60	0	0
ACE assessment	40	50	10	0
Presenting reports	40	40	20	0
Role of the parent in sport	38	50	13	0
Induction	33	33	22	11
Instruction principles and practice	33	0	67	0
ACE administration	33	44	22	0
Workplace safety	29	14	29	29
Education planning	20	20	60	0

Notes: [a] Sorted into descending order on "very" useful rating
[b] Expressed as a percentage of the number of ratings supplied

Table 25

Summary of Usefulness Ratings of Modules

Rating	Structure of Sport		Counselling Issues		ACE Program		ACE Practicum	
	Count	%	Count	%	Count	%	Count	%
"very useful"	24	43%	46	61%	32	46%	22	49%
"moderately useful"	24	43%	22	29%	23	33%	12	27%
"a little useful"	5	9%	7	9%	14	20%	5	11%
"not useful"	3	5%	1	1%	1	1%	6	13%
Totals	56	100%	76	100%	70	100%	45	100%

Training Methods

Based on analysis of the training manual (Victoria University, 2000), ACE advisor training uses four types of learning tasks: researching and writing assignments, observation of counselling sessions, practical exercises, and supervised counselling experience. In addition, advisors receive resource and reference lists during their training. Advisors provided ratings of these counsellor-training methods regarding the usefulness of the methods in building knowledge and skills. Table 26 provides a summary of these ratings. More than two-thirds of advisors rated each of the methods at least moderately useful. Advisors provided only one "not useful" rating (for resource and reference lists provided in training). Of the five methods used in ACE advisor training, respondents rated observation of counselling sessions as the most useful, with 73% of advisors rating the method "very useful." Advisors also gave high ratings for supervised counselling practice, and practical exercises, with, respectively 60% and 53% of respondents rating these methods as "very useful."

Table 26

Advisors' Ratings of ACE Advisor Training Methods

Training Method [a]	Percentage usefulness rating [b]			
	very	moderately	a little	not
Observation of counselling sessions	73	20	7	0
Supervised counselling practice	60	40	0	0
Practical exercises (e.g., development of networks, writing checklists)	53	13	33	0
Resources and reference lists provided in training	27	40	27	7
Researching and writing assignments	20	53	27	0

Notes: [a] Sorted into descending order on "very" useful rating
[b] Expressed as a percentage of the number of ratings supplied

Table 27 provides an analysis of the training methods used within each subject. The table presents the subjects in order based on the percentage of "very useful" ratings in building knowledge and skills. Two patterns emerged from this matching of training methods with subjects. Firstly, the training program makes extensive use of writing and researching assignments and practical exercises, two of the lower-rated training methods. Secondly, the ratings of training methods and subjects do not appear to be related, with the preferred training methods (observation of counselling sessions and supervised counselling practice), featuring in both higher- and lower-rated subjects. For example, observation of counselling sessions is used in the highly-rated "athlete issues" subject as well as in "education planning", rated as one of the less useful subjects.

Table 27

Training Methods Employed Within Each Subject

Subject [a]	Training method			
	Assign. [b]	Observ. [c]	Practical [d]	Superv. [e]
Athlete issues	Yes	Yes		
Industry practicum	Yes	Yes	Yes	Yes
National, Commonwealth, and Olympic representation	Yes			
ACE assessment	Yes	Yes	Yes	
Role of the parent in sport	Yes	Yes	Yes	
Presenting reports	Yes			Yes
The process of career counselling	Yes	Yes		
Career planning	Yes	Yes	Yes	Yes
Structure of sport	Yes		Yes	
ACE administration	Yes			
Theories in career counselling	Yes	Yes	Yes	Yes
Working with sporting groups	Yes		Yes	
Instruction principles and practice	Yes	Yes	Yes	
Education planning	Yes	Yes	Yes	
Induction	Yes			
Workplace safety			Yes	

Notes: [a] Sorted into descending order based on the percentage of "very useful" ratings for building knowledge and skills

[b] Writing and researching assignments

[c] Observation of counselling sessions

[d] Practical exercises (e.g., development of networks, writing checklists)

[e] Supervised counselling practice

Responses to Open-Ended Questions

Advisors responded to four open-ended questions regarding two areas of interest. The first area concerned training not listed in the questionnaire that they found to be particularly useful or not useful in their applied work. The second asked advisors about the useful skills and knowledge they brought to advisor work from other training and experience. All but one of the 15 advisors who responded to the questionnaire provided answers to at least one of the questions, and 10 provided answers for both. Two primary themes (shown in Figure 8) emerged from the responses; the usefulness of other elements in training, and skills and knowledge gained from non-ACE training and experiences.

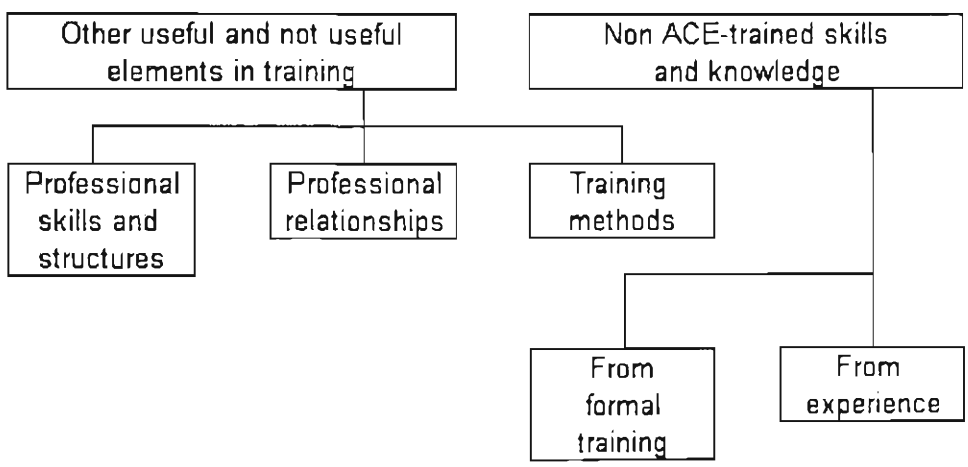

Figure 8. Relationships between themes and categories identified in advisors' responses to open-ended questions.

Other Useful And Not Useful Elements Of Training

Advisors identified aspects of their ACE training not covered in the questionnaire that they had found useful or not useful in their work with athletes. These aspects grouped under three headings; professional skills and structures, professional

relationships, and training methods. All the comments classified under professional skills and structures, and professional relationships concerned aspects of training that were useful. Comments classified under training methods include both useful and not useful aspects of the training program.

Professional skills and structures. The most commonly mentioned professional skills and structures gained through ACE advisor training were the acquisition of a range of career counselling tools, and the standardization of the program nationally. Three advisors commented on the value and diversity of the tools they used in training. Only one of these advisors indicated any examples of these tools, saying that "[another useful aspect of my training was] using counselling tools - card sorts, career builder, etc."

Four advisors commented on the usefulness of understanding the procedures and philosophies employed universally by ACE. One advisor commented on the value of such standardization. "[Another useful aspect of my training was] standardisation of file notes, report writing, and data collection - especially for national program - ensuring quality service is always delivered."

Other skills acquired by advisors during training and identified in their comments were communication strategies, training in particular issues they might encounter, and identifying role limitations. Identifying role limitations was also identified by a different advisor as one of the non-ACE-trained skills he or she had found useful in work with athletes.

Professional relationships. Six advisors commented on the usefulness of the professional networks they developed through the training. They indicated these networks provided both support, and a vehicle for communicating and discussing the work they were undertaking. One advisor commented that a useful aspect of training

was "discussing [issues] with other ACE staff, comparing/sharing how we approach our work, and different strategies we use when working with athletes."

Training methods. Advisors made both positive and critical comments regarding the training methods employed. Advisors indicated that they found the recognition of prior learning, and the ongoing training to be valuable aspects of the training program. For example one graduate commented that a useful aspect of training was "the ability to transfer skills and knowledge from past work/experience, and own personal development qualifications." A second commented on the usefulness of "ongoing workshops in the focus areas."

Two advisors commented critically on aspects of their advisor training. The first comment related to the speed of training delivery. The advisor commented that

> it was not very helpful that in the early days we were fast-tracked through some of the modules at a residential training week. It did not allow enough time for reflection on the areas we studied, and was confusing at times.

The second comment related to specific techniques and resources used in the training process. The advisor said that "the role plays are difficult at times due to not knowing the full picture of the case. Some of the books - too in depth."

Non-ACE-Trained Skills And Knowledge

Advisors identified skills and knowledge they had acquired elsewhere and found useful in their ACE work with athletes. Their comments grouped under two headings depending on the source of the skill acquisition: from formal training, and from experience.

From formal training. All but two of the advisors identified non-ACE training sources from which they acquired skills useful in their ACE work with athletes. The sources grouped under four headings: academia and universities, short courses and

workshops, training provided by employers, and training provided by counselling organisations. (Occasionally advisors identified the source without identifying the specific skills and knowledge that were acquired.)

Most of the identified skills were related directly to career counselling work. These included training in general counselling skills, resume preparation, ethics, follow-up strategies, transition issues, and working with the media and public speaking. As previously mentioned, one advisor indicated that an understanding of professional competence boundaries was one of the skills that the advisor acquired through non-ACE training. Other training, less directly associated with career counselling, included training in child protection strategies, first aid, information technology, hostage negotiation, and sport psychology.

From experience. More than two-thirds of the advisors indicated they had gained useful skills from practical experiences outside of formal ACE training. These experiences fell into three broad categories: athletic or coaching experience, life skills, and work experience.

Approximately half of the advisors indicated they had gained skills or advantages from experience as an elite athlete or coach that were useful in their ACE work. These advisors commented that such experience provided an understanding of the demands of elite sport, credibility in the eyes of athletes and administrators, and specific skills related to managing people.

One advisor emphasized the value of such experiences to advisors' understanding. "[Non-ACE trained skills and knowledge includes a] realization of what it takes to be a full-time athlete, to combine sport with studies, and to combine sport with part-time work." A second advisor emphasised the credibility that such experiences provide. "It may not be right/fair, but athletes/sports performance directors have a level

of respect if they know you know exactly what it is you're trying to promote by virtue of having done it yourself."

Two advisors commented on life skills that they found particularly useful in their ACE work. The first commented that life experience skills the advisor brought to ACE work included a " natural ability to communicate." The second advisor commented that "a certain maturity is required to work with others in the 'counselling mode' [including] life experience and sensitivity to others [and an understanding of the] complexity of some issues/cases." Other skills included the use of initiative, and the "ability to network within the industry."

Several advisors commented that experience in specific areas of employment was helpful in their ACE work with athletes. A number of advisors indicated that work as a teacher was particularly helpful. Other jobs included work as a television producer, employment with the police, and work as a sport psychologist.

Discussion

The aim of this study was to explore ACE advisors' opinions of the usefulness of the advisor training course. The advisors who participated in the study completed their Graduate Certificate level training through the AIS, prior to the program being run at a higher education institution.

Overall, advisors provided generally high ratings for the course. They reported that more than 80% of the subjects they completed were at least moderately useful in their knowledge and skill building and applied value. Advisors indicated that they preferred the applied training methods of session observation and supervised practice to writing assignments or the resource and reference lists they received. Finally, advisors received a large proportion of subject credits through the recognition of prior learning (RPL). In completing the course, all but one of the advisors received some RPL credits, and almost half of all subject completions were awarded through RPL.

The following section starts with a discussion of the variation in the usefulness ratings of the components of the training program, and some of the anomalies in these results. Discussion then turns to other factors advisors considered useful in their work with athletes, and the ways in which the study could have been improved. The final section contains a discussion of changes made to the program subsequent to this research, and future research possibilities.

Preference for Practical Content

Advisors indicated an overall preference for subjects and training methods that emphasised the practical work advisors do with athletes. The most highly rated subjects were: athlete issues; the industry practicum; National, Commonwealth, and Olympic representation; working with sporting groups; and the ACE assessment. These subjects dealt either with the issues that athletes are likely to face during their sporting careers

(athlete issues and elite representation), or with aspects of delivering ACE services (industry practicum, working with sporting groups, and the ACE assessment). Advisors also demonstrated a clear preference for two practical training methods; observation of counselling sessions, and supervised counselling practice. Although the remaining three methods received favorable ratings overall, more than one in four advisors rated each as no more than "a little useful."

Advisors' preference for practical training is not surprising. Conducting and observing counselling sessions is likely to be more interesting and result in more direct value than, for instance, researching and writing essays. The use of distance education delivery would, however, limit the opportunities for learning through direct contact. Despite a preference for practical topics, advisors also provided high ratings for knowledge and skill focused subjects. They were able to differentiate between the applied value of topics and the value in building knowledge and skills, even though the relationship between the ratings was moderately strong ($r = .67$). Topics such as theories in career counselling, and structure of sport achieved much higher relative rankings for their knowledge and skill building value than their applied value. Such differentiation provides evidence that advisors value both facets of the training, and that, in spite of a preference for practical topics, the value of theoretical topics is still considerable. These findings support the assertion that competent counsellors value both a theoretical grounding and practice in applied settings (Dryden et al., 1995; Thorne & Dryden, 1991).

Low-Rated Subjects

The low ratings for the usefulness of the core subject of education planning was a surprise. The learning objectives for the subject were to identify the key elements of the educational system, and to discuss and implement effective educational planning.

The subject was completed by only 5 of the 15 advisors, and it ranked among the bottom three subjects for both knowledge and skill building value and applied value. One possible reason for the low scores may be that advisors already had extensive knowledge in this area, as evidenced by the high rate of RPL. Possibly those who completed the subject also had background knowledge in the area and found the content of the subject too basic.

Workplace safety received the lowest overall rating of the topics with more than half the respondents indicating the subject was of little or no value. Reasons for these low ratings are at best speculative, as advisors provided no direct comment on the topic. The subject requires advisor-trainees to complete the Occupational Health and Safety Course Level 1 (Victoria University, 2000), a generic workplace safety course offered by the Technical and Further Education (TAFE) sector. (TAFEs are Australian tertiary institutions offering education and training programs with an emphasis on meeting community and industry needs.) The low applied value rating might indicate that workplace safety is not a common issue in ACE work. The low knowledge and skill building value might reflect poor or narrow content, a lack of sport-specific content, inconsistent delivery, or low perceived relevance.

The low ratings for the structural program elements ("structure of sport", "instruction principles and practice", and "the induction") may reflect the practical orientation of the advisors. Such elements are included frequently in programs to ensure that participants have a common base of knowledge, and an understanding of the philosophy and structure of the training program. The inclusion of structural topics in the ACE advisor training program would facilitate program delivery rather than provide direct benefits in the building of knowledge and skills or in working with athletes. In addition, because of their backgrounds (a number of advisors are or were athletes and

coaches), many advisors were likely to have an extensive understanding of the structure of sport, and, as a result, the usefulness of the subject may have been reduced.

Recognition of Prior Learning

Advisors received credit for prior learning for, on average, almost half the subjects in the training course. Only one advisor completed all 16 subjects in the Graduate Certificate course. There were also marked variations in RPL rates among the three countries that operate ACE. New Zealand advisors received the highest rate of RPL credit, with more than three-quarters of the subjects credited through this method. The variation in RPL rates between countries indicates that either the prior experience of advisors in different countries is markedly different, or the approach awarding RPL differed amongst the countries.

The advisors appeared to regard the RPL process as one of the more valuable aspects of the training program. Two advisors commented that the transfer of skills and knowledge from previous experiences was particularly useful in their work with athletes. One of these advisors referred to the RPL process as important in validating such prior learning. Without diminishing the value of prior experience in careers work, advisors could be expected to value a system that reduces the amount of work required to gain a qualification.

The high rate of RPL credits may indicate that there is redundancy in the program content, that the criteria for RPL credit may be low, or that the initial cohort of trainees may have been an older and highly experienced group. (The mean age of the respondents was 38 years.) Variation in the rates of RPL credits amongst subjects and advisors may also indicate the range of previous experiences that candidates bring with them into the program. It is possible that in the rush to establish programs, and to certify new advisors, the pace of training and the leniency around credit for RPL may have

been over-extended. Two advisors indicated that "fast track" training resulted in a lack of emphasis on key areas (such as career counselling) and insufficient time for reflection and absorption. Given that New Zealand advisors did not complete more than three-quarters of the course (due to RPL credits), there is a question about whether the credits were given too easily, or the course is less relevant in NZ.

The course may also contain redundant material. Elimination of course content should only be undertaken with care, as elimination of some subjects might result in incomplete training for candidates without the requisite previous experience. Subjects with a high rate of RPL and low usefulness ratings (such as workplace safety, instruction principles and practice, and presenting reports) might usefully be deemphasized or combined with other subjects to make way for the expansion of subject areas rated as more useful (such as subjects in the counselling and practicum modules). Increasing the stringency of RPL criteria for subjects rated as particularly useful (such as athlete issues) may also improve the program, particularly where such subjects have high rates of RPL credit. Increasing the emphasis on practical subjects would facilitate an increase in the use of the preferred training methods of observation and supervision

Over the last 10 years ACE has expanded rapidly through Australia and overseas to Great Britain and New Zealand. Two aspects of the program particularly valued by advisors, the systematic and structured approach to ACE delivery, and the recognition of learning, will continue to be important as the program continues to expand. The widely divergent rates of RPL credits, however, indicate that a review and greater standardisation of the criteria for granting RPL might be useful, or that the content of the course may need to be customised for countries taking up the program in the future.

Advisor Comments

Of the aspects of ACE training not associated directly with the subject list, advisors commented that the acquisition of career counselling tools, the standardisation of ACE program procedures and systems, and professional networks gained were aspects they found particularly helpful. For advisors inexperienced in career counselling situations, the practical value of having or developing a range of tools, a clear structure, and support networks would be considerable.

The advisors as a group appeared to have wide experience in other areas of sport and life. They regarded this experience as an important and useful adjunct to skills learned during the training course. The advisor group was not particularly young. A number of advisors commented on the value of elite sport experience to their understanding of the situations in which their clients find themselves. Almost all the advisors referred to skills gained in other areas of employment as being valuable in their work with athletes (e.g., teaching, counselling, sport psychology, coaching). Where advisor-candidates join the training program without these experiences it is difficult to see how the program could compensate for such deficiencies. Younger trainees, in particular, may bring significantly less experience with them to the course. A useful addition to the course might be a series of group discussions of the prior experience that trainees bring to the training program, and how these experiences may help or hinder advisors in their work with athletes.

Re-Accredited Graduate Certificate

In 2002, the National ACE advisor training program (the Graduate Certificate in Athletic Career and Education Management, as it was then called) was revised and accredited with the Victorian Qualifications Authority as the Graduate Certificate in the Career Counselling for Elite Performers (Dance, Music, Sport) (Victoria University,

2001). Apart from recognizing the parallels between elite performers in sport and those in music and dance, the new program included structural changes to the form of the training. The new framework contains three core modules, and three optional modules. The three core modules consist of counselling foundations for working with elite performers, career planning for elite performers, and application of principles and practice. The optional modules relate to developing an understanding of the unique environments of elite performance in sport, dance, and music.

Most of the advisor preferences for course content appear to have been taken up in the revised Graduate Certificate. Table 28, reprinted from the accreditation submission, provides translation information between the older and newer courses. Five subjects from the original program do not appear in the table. These subjects are athlete issues, instruction principles and practice, the industry practicum, presenting reports, and workplace safety. The contents of the highly rated athlete issues and industry practicum subjects have been included as sub-modules, respectively, in the sport elective and the application of principles and practice modules. For the sub-module dealing with athlete issues, advisors critically examine the major issues that affect the careers of elite performers, including career, transition, and selection process issues. For the practicum, advisors devise and deliver career planning in a supervised workplace setting. The contents of the less popular instruction principles and practice, presenting reports, and workplace safety subjects have, in the main, disappeared from the new syllabus.

Table 28

Translation of Subjects from Graduate Certificate in Athlete Career and Education Management to Graduate Certificate in Career Counselling for Elite Performers (Dance, Music, Sport)

Graduate Certificate in Athlete Career and Education Management	Graduate Certificate in Career Counselling for Elite Performers (Dance, Music, Sport)
Induction Structure of sport National, Commonwealth, and Olympic representation Working with sporting groups The role of the parent in sport	The elite performance sport environment Note: The elite performance music environment (No previous equivalent) The elite performance dance environment (No previous equivalent)
ACE assessments (partial) The process of counselling	Counselling foundations for working with elite performers
Theories in career counselling (partial) ACE administration ACE assessments (partial) Career planning (partial) Education planning (partial)	Career planning for elite performers
Theories in career counselling (partial) ACE assessments (partial) Career planning (partial) Education planning (partial)	Application of principles and practice

Note. From *Graduate Certificate in Career Counselling for Elite Performers (Dance, Music, Sport): Accreditation Submission* (page v), by Victoria University, 2001, Melbourne, Australia: Victoria University. Copyright 2001 by State of Victoria. Reprinted with permission.

RPL is discussed and retained in the new course structure. RPL under the new course is administered according to University policy. For the subjects for which they request RPL credit, applicants are required to provide documentary evidence of having completed the learning objectives through formal training or employment or life experience.

The new syllabus and structure addresses many of the issues and preferences identified from the survey results. Through their responses and comments, advisors in the present study raised other issues and suggestions that may require further consideration. One suggestion is the provision of opportunities for trainee advisors to network with each other and discuss counselling issues, something likely to be influenced by the delivery method (e.g., internet-based delivery, distance education). To be a credible training program, the course must add to advisors' skills and knowledge. Very high rates of RPL, and concern from advisors that core material is delivered at too rapidly for adequate learning indicate that, in the past, some advisors may not have gained all the training benefits the course could provide. Changes to the delivery of the course may, however, have addressed these issues.

Limitations and Future Research

One limitation of the present study was the lack of explanation for some of the quantitative data provided. Comments from advisors regarding the reasons for low ratings for workplace safety, for example, would have been useful when formulating recommendations for changes or improvements to the training program. In the present discussion, several potential explanations are offered because of this absence of information.

A second limitation is the small size of the responding group. This limitation, however, is insurmountable given that questionnaires and reminders were sent, not to a

sample of ACE advisors, but to the entire population, all 35 of them. Difficulty arises, however, in determining the weight to be afforded to comments from individual advisors on specific aspects of the program.

Given that the ACE training program has recently been revamped and re-accredited, an obvious route for follow-up research would be to investigate the opinions of recent graduates from this new program. Such research would provide a clear indication as to whether issues raised in the present study have been addressed in the revised training format offered by the Graduate Certificate, and may bring to light new issues related to the changed structure and content.

CHAPTER 5

GENERAL DISCUSSION

Since its inception in 1990, ACE has grown from a program operating solely at the Victorian Institute of Sport, to an international program operating throughout Australia, and in New Zealand and England. In addition to career and education guidance, ACE advisors provide a range of support and training to help athletes cope with the range of sporting and non-sporting demands. The focus of the current research was an exploration of the usefulness of career interventions, and ACE in particular, and of ACE advisor training. The following section provides a discussion of the usefulness of ACE, retirement support services, the range of ACE services and advisor training, and of the particular gains in knowledge arising from the current research about the provision of career and education services to athletes.

ACE Usefulness

Results from the current research indicate that career and education services provide positive benefits for the majority of athletes who have used them. Results from Study 2 indicated that a career intervention, similar to that used with the general population, provided benefits for specialist athlete populations. That is, interventions that helped young footballers focus on their post-sporting careers resulted in moderate gains in their confidence to be able to make career decisions in the future. This result provided support for the 'high usefulness' ascribed by athletes in Study 1 to career and education services provided by ACE. The fact that the footballers demonstrated gains simply as a result of completing the career-related measures indicates that comparatively brief contact may be sufficient to stimulate career-related thinking and the resulting changes in efficacy beliefs.

These results support the positive findings of career intervention researchers

working with the general population. In their meta-analyses Whiston et al. (1998) and Oliver and Spokane (1988) reported moderate positive effects for career counselling interventions across a broad range of variables, including career decision self-efficacy. McNeill (1990), using similar interventions and outcome measures to those used with the young footballers in the current research, found that her student-participants gained from participation, irrespective of whether they were members of the control or intervention groups.

Although use of ACE services is primarily voluntary, athletes are required to complete an annual ACE interview. An unusual finding from the Oliver and Spokane (1988) and Whiston et al. (1998) meta-analyses of career interventions in the general population was that non-voluntary participants made similar gains on career measures as vocational clients and solicited participants. Low ratings for the usefulness of the annual interview may be more a function of the content, structure or context of the interview than compulsory use.

The annual ACE interview serves a number of functions. Not only does it provide the athletes with the opportunity to review the status of their career plans, it provides advisors with the opportunity to make contact with the athletes, assess any potential problems, and discuss the range of ACE services that athletes may wish to use. These are important functions, given the number of athletes comments regarding a lack of awareness of the range of ACE services, and the perceived need for greater promotion of the services. Given the importance of the annual interview, the low rate of use by athletes in the current study, and their low usefulness ratings, is of some concern. A review of the content and delivery of the annual interview may serve to strengthen the value of the service to athletes and maintain the important functions it serves in relation to athlete contact and the promotion of ACE.

Athletes also commented on difficulties in gaining access to ACE services, and on the value of increasing the number of contacts between advisors and athletes. These results support Gorely et al.'s (2001) earlier findings that more than a quarter of athletes were less than moderately satisfied with ACE accessibility. The main reasons for these access issues appear to be related to ACE resources, including personnel. Athletes commented that difficulties in ACE services access were worse for regionally-based athletes, and for athletes wanting to access services out of normal business hours. Athletes also commented that advisors appeared to be overloaded and were, therefore, too busy to provide good service. These comments were further supported by athletes' criticism of the lack of follow-up provided by some ACE advisors. The variation in service use among the IASs might also indicate variation in the resourcing of services on a state-by-state basis.

Retirement Support

Retirement support is one area of ACE service for which athletes provided low ratings (nearly two-thirds of athletes who used the service rated it as no more than a little useful). Given one of the foci of ACE is on helping athletes prepare for their post-sporting lives, the low use and low usefulness rating of the retirement support service is surprising.

The only study of a post-athletic retirement program (the CAPA program; Petitpas et al., 1992) indicated that the retired athletes valued the one-day workshop, and, in particular, the small group discussions in which the athletes could share feelings with other athletes coping with similar transitions. Petitpas et al. found that among the most frequently mentioned issues faced by retired athletes were feelings of inadequacy and low self-confidence outside sport roles, feelings of being alone and misunderstood, and frustration and anger at the athletic system. Speed et al. (2001) found that, in

addition to those issues identified by Petitpas et al., two other major issues for retired jockeys were social isolation and the lack of recognition by the industry of their contribution to the sport of horse racing. These studies indicate that the difficulties to be addressed by retirement support programs extend beyond simply planning for a career after sport, the focus of pre-retirement ACE services.

Range of Services and Advisor Training

ACE provides a range of services that extends beyond career and education guidance. These include sport performance-related programs (such as nutritional cooking and basic sport psychology), services designed to help athletes cope with elite sporting life (such as working with the media, time management training, and sponsorship advice), and services related to personal development (such as counselling support, a self-awareness course, and training in assertive communication and dealing with conflict). Although athletes supported strongly the usefulness of the career and education services, their comments regarding the most valuable aspects of ACE included equally strong support for the value of the other services provided by the program.

Many of these services are provided through group training. This mode of delivery allows organisers to bring in specialists to run these workshops. It is the advisors, however, who provide the one-to-one services valued by athletes (services such as "integrating sport and career demands" and "counselling support", both of which had moderate rates of use but high usefulness for athletes). In particular, athletes commented on the wide range of issues they felt they could bring to advisors, and the one-to-one support they received from advisors on these sporting and non-sporting issues. It appears that the relationships built up through the course of regular ACE contact seem to provide a vehicle for athletes to discuss with advisors increasingly

broader and more sensitive issues.

Research supporting the importance of the working relationship for successful therapeutic outcomes (e.g., Horvath & Symonds, 1991, and Martin, Garske, & Davis, 2000) may also indicate the importance of this relationship to the usefulness of ACE services to athletes. The meta-analyses of Horvath and Symonds, and Martin et al., indicated that the relationship between measures of the alliance and therapeutic outcome was moderate (r = .22 to .26) and robust. The importance of this relationship to successful interventions in sport psychology has also been argued literature (Andersen, 2000). Andersen commented that development of the counsellor, and not just intervention techniques, is important to effective service delivery.

Advisors commented that life experience was one of the more useful areas of skills and knowledge that they bring to the program, and this experience is likely to be particularly useful in helping athletes cope with these more general issues. The ACE advisor training program, however, provides little in the way of general counsellor training and, in particular, personal development aspects of such training. Training appears to be focused narrowly developing the specialist skills and knowledge to work with athletes in their career and education issues, rather than to provide the general counselling skills and development recommended by authors such as Corey et al. (1998) and Engels et al. (1995). The Australian Association of Career Counsellors (2003b) supports these authors' views that career counsellors require generalist counselling training in addition to specialist training, by indicating that career counselling is a specialist form of counselling. Even the updated Graduate Certificate course for advisors has been labelled "career counselling" rather than using the phrase "athlete career and education management" included in the title of the earlier course.

In agreement with the holistic principles of ACE, career counselling literature

supports the integration of career and life issues. Career counselling researchers are recognising that career issues cannot be addressed in isolation, but must be considered in the context of the clients' lives as a whole (e.g., Herr, 1997). Peavy (1992) argued that career counselling should provide more than simply an information service but should assist clients to construct personal meaning. That is, the separation of career counselling from general counselling is not supported by the literature. More importantly, athletes appear to value the support they receive from general counselling aspects of ACE work.

ACE was born of an identified and unaddressed need to help elite athletes with career and education issues. IASs recognised this need and took responsibility for providing the resources to launch the program. The current form of the advisor training course reflects this narrow focus on career and education. That is, the training was developed to provide an accessible program to help advisors address the specific tasks of career and education guidance. Given that athletes both use and value the general counselling services provided by advisors, there appears, however, to be a need to address general counselling topics (such as personal values and self-awareness) in the advisor training.

Career counselling is recognised as a specialty and, as such, requires specialist training. That is, career counselling is not work that should be undertaken by counsellors with only generalist training. The current advisor training program provides advisors with an excellent grounding in these specialist areas of knowledge and skill. Career counsellors should, nevertheless, have the training and skills to help clients cope with career and education issues in the context of their lives as a whole. In the future development of advisor training, there is an opportunity, therefore, for increasing the scope of the training to include areas such as self-awareness about the values and beliefs

advisors bring to their work, and extended training in face-to-face counselling skills – the skills of general counsellors. These skills would serve to strengthen the support services that athletes value, and may provide the skill-base for a broader and more valuable program of retirement support.

Gains in Knowledge

The current program of research has increased the body of knowledge regarding career and education services for athletes, and ACE services in particular. Specific areas addressed in the current research include the exploration of the effect of a particular career intervention in the sporting context, and a comparison of the usefulness athletes ascribe to services and the objective outcomes from career interventions. The program also provided an opportunity to determine which areas of ACE service athletes have found most and least useful, and to assess the athletes' interest in the future use of ACE services. Finally, the program provided an opportunity to assess strengths and weaknesses of the advisor training program, and the degree of match between training of advisors and the range of services provided by ACE.

Results indicate that ACE, and ACE-type services, generate positive change for athletes, as supported by the results of the intervention study with footballers, and the responses to the athlete questionnaire. ACE provides a broad range of services, and athletes particularly value services that help them in the present as well as those designed to help them in their post-sporting lives. ACE advisors provided high ratings for their training, and, in particular, for training focused directly on the practical task of working with athletes. Advisors commented however, that life experience was particularly important for the work. Advisors may benefit from a broadening of the content of the advisor training to provide a better match with the wide range of services offered by ACE.

Future Research Directions and Conclusion

Future research on the effects of career interventions with athletes could usefully incorporate a range of design characteristics not employed in the current program. Although the current program's intervention with the footballers used a prospective design, longer-term study of the effects of career interventions (e.g., over the course of an athletic career) would provide a greater understanding of the effects and value of such interventions over time. Such studies could also explore a greater range of intervention approaches (e.g., interventions to influence an athlete's orientation to the future [Marko & Savickas, 1998]). Rather than using homogeneous interventions, such studies could incorporate stage-appropriate interventions based on one of a number of available models (stage of change [Prochaska & DiClemente, 1983], stage of career [Wylleman, Alfermann, & Lavallee, 2004a], and stage of lifespan [Danish, 1991]). The use of multi-method approaches employed in the current program could be expanded (e.g., through the use of interviews) to explore the factors that moderate the effects of career interventions for athletes. Finally, expanding the participation group to include former athletes, coaches, and family members may provide further information on the effects and mechanisms of interventions.

The IASs, by endorsing and supporting the ACE program, have taken concrete steps to ensure the future well being of current athletes. In spite of athletes' focus on the here-and-now demands of elite sporting life, even prior to retirement, they value the career and education services ACE provides. Given the young age of many of the athletes, the comparative lack of post-sporting-career focus, and the apparent gains by athletes from use of the wide range of services, the argument for maintaining at least some mandatory content is strong. The high level of interest demonstrated by athletes in the use of ACE services also provides an important opportunity to help athletes both

deal with current issues and prepare for the difficult process of retiring from elite sport.

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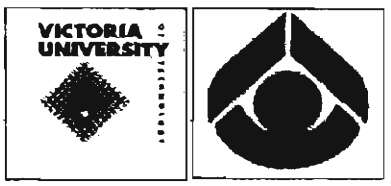
Appendix A: Questionnaire Study 1

Athlete Career Education (ACE) Services Survey



>>>Please complete ALL THREE sections.<<<

SECTION 1: ACE services you have USED

Introduction: ACE Services includes both group training courses and individual services provided to you by ACE personnel through your Institute or Academy of Sport.

Please complete **BOTH part A and part B** of this section.

Part A:

Instructions:

For each of the services listed below THAT YOU HAVE USED,
please circle the **rating number** that best describes how useful you have found the service to be.
If you have **NOT** used that service please leave that line blank.

Complete BOTH the "Services Provided to Individuals" AND the "Group Training Courses" sections.

Services Provided to Individuals	not useful	a little useful	moderately useful	very useful
Education Guidance	0	1	2	3
Career Counselling	0	1	2	3
Job Contacts	0	1	2	3
Financial and Budget Advice	0	1	2	3
Referral to Other Support Services	0	1	2	3
Speaker's Engagements	0	1	2	3
Annual ACE Interview	0	1	2	3
Retirement Support	0	1	2	3
Counselling Support (General)	0	1	2	3
Job Search Preparation (e.g. resume)	0	1	2	3
Integrating Sport and Career Demands	0	1	2	3
Sponsorship Advice	0	1	2	3
Time Management Training	0	1	2	3
Other - Please list and rate below:				
	0	1	2	3
	0	1	2	3
	0	1	2	3

Office Only:

Section 1 (cont)

For each of the services listed below THAT YOU HAVE USED,
please circle the **rating number** that best describes how useful you have found the service to be.
If you have **NOT** used that service please leave that line blank.

Group Training Courses	not useful	a little useful	moderately useful	very useful	Tick here if you received training individually
Public Speaking	0	1	2	3	
Negotiation Skills (e.g. communication and problem-solving)	0	1	2	3	
Travel Arrangements	0	1	2	3	
Assertive Communication	0	1	2	3	
Effective Time Management	0	1	2	3	
Personal Image and Presentation	0	1	2	3	
Working with the Media	0	1	2	3	
Budgeting and Financial Management	0	1	2	3	
Nutritional Cooking	0	1	2	3	
Study Skills	0	1	2	3	
Goal Setting	0	1	2	3	
Taxation Principles for Athletes	0	1	2	3	
Sponsorship Proposals	0	1	2	3	
Sports Law and the Athlete	0	1	2	3	
Being an Elite Athlete	0	1	2	3	
Maximising the Resume	0	1	2	3	
The Job Interview	0	1	2	3	
Athlete Management	0	1	2	3	
Stress Management	0	1	2	3	
Drugs in Sport	0	1	2	3	
Basic Sports Psychology	0	1	2	3	
Self Awareness for Athletes	0	1	2	3	
Computing	0	1	2	3	
Career Planning	0	1	2	3	
Dealing with Conflict	0	1	2	3	
Post-Olympic Debrief	0	1	2	3	
Other - Please list and rate below:					
	0	1	2	3	
	0	1	2	3	
	0	1	2	3	

Office Only:

Section 1 (cont)

Part B:

Please describe what you feel is **the most valuable aspect** of ACE services for you.

Please describe any aspects of ACE services you feel **could be improved**.

Office Only:

SECTION 2: ACE services you have NOT YET USED

Introduction: There may be some ACE Services listed in this questionnaire that you have not yet used.

Instructions:

For each of the services listed below THAT YOU HAVE **NOT** YET USED, please tick the box that best indicates how interested you are in using that service in the future.

If you **HAVE** used that service please leave that line blank.

Complete BOTH the "Services Provided to Individuals" AND the "Group Training Courses" sections.

Services Provided to Individuals	not interested	might be interested	very interested
Education Guidance			
Career Counselling			
Job Contacts			
Financial and Budget Advice			
Referral to Other Support Services			
Speaker's Engagements			
Retirement Support			
Counselling Support (General)			
Job Search Preparation (e.g. resume)			
Integrating Sport and Career Demands			
Sponsorship Advice			
Time Management Training			
Other - Please list and rate below:			

Office Only:

Section 2 (cont)

For each of the services listed below THAT YOU HAVE **NOT** YET USED, please tick the box that best indicates how interested you are in using that service in the future.
If you **HAVE** used that service please leave that line blank.

Group Training Courses	not interested	might be interested	very interested
Public Speaking			
Negotiation Skills (e.g. communication and problem-solving)			
Travel Arrangements			
Assertive Communication			
Effective Time Management			
Personal Image and Presentation			
Working with the Media			
Budgeting and Financial Management			
Nutritional Cooking			
Study Skills			
Goal Setting			
Taxation Principles for Athletes			
Sponsorship Proposals			
Sports Law and the Athlete			
Being an Elite Athlete			
Maximising the Resume			
The Job Interview			
Athlete Management			
Stress Management			
Drugs in Sport			
Basic Sports Psychology			
Self Awareness for Athletes			
Computing			
Career Planning			
Dealing with Conflict			
Post-Olympic Debrief			
Other - Please list and rate below:			

Office Only:

SECTION 3: General Information

Introduction: Some general information about you will help us to understand the information you have provided.

Please advise:

Age in years

Sex (M/F)

Please supply the following information regarding the main sport in which you are competing.

Sport

Number of years in competition at State level or above

Thank you for your time. The information you have provided will be very helpful to us.

Please return the survey in the reply paid envelope provided.

Office Only:

Appendix B: Covering Letter Study 1

Victoria University

Hi

RE: ACE RESEARCH PROJECT

I am writing to introduce myself to you, to outline the research project I am undertaking, and to ask for your help.

My name is Gavin Dagley, and I am a PhD student at Victoria University in Melbourne. Early this year I approached the [State or Territory Institute or Academy of Sport] and asked if they would support a research project on the Athlete Career Education program (ACE) that operates at the [State or Territory Institute or Academy of Sport]. The research involves [State or Territory Institute or Academy of Sport] squad members (you) completing a 10-minute questionnaire about various aspects of ACE services.

The [State or Territory Institute or Academy of Sport] has lent its support to the project, and I am hoping that you can spare the time to help by completing the attached questionnaire.

WHAT YOU DO:

- Read the attached Information for Participants
- If you are under 18 years of age, have your parent or guardian complete the attached Consent Form
- Complete the questionnaire
- Drop the completed questionnaire in the post in the enclosed reply paid envelope.

If you have any questions you can contact my supervisor, Dr Harriet Speed, or me by:
Phone: Victoria University Ph (03) 9689 8637
or email: Dr Speed at - harriet.speed@vu.edu.au or Gavin at - dougal9@yahoo.com

Thanks for your help.

Gavin Dagley

Appendix C: Information Sheet Study 1

Victoria University

INFORMATION TO PARTICIPANTS

The Athlete Career Education Program (ACE):
The Usefulness of ACE Services and Counsellor Training

The Athlete Career Education program (ACE) is a service offered to you as a scholarship holder through your State Institute or Academy of Sport, or the Australia Institute of Sport. The enclosed questionnaire is for athletes aged 16 years and over, who hold, or have held, scholarships with the AIS or State Institutes or Academies of Sport within the last 12 months.

We invite you to take part in this important research study. Participation in the study is *not* required as part of your scholarship conditions.

The questionnaire will take about 10 minutes to complete, and contains two lists of ACE services to athletes. You are asked to indicate your use of ACE services, how useful you have found them to be, and which services you would be interested to use in the future. You are also asked to describe the aspects of ACE you found most valuable, those that could be improved, and provide information about your sport and years of competing, your age, and your sex.

The information you provide will be invaluable in improving the services available through ACE programs, and thereby helping to reduce sport retirement difficulties for elite athletes, and providing valuable skills for athletes to use in their everyday lives. ACE services are used to a greater or lesser extent by all scholarship holding athletes. Your input into ACE research would be greatly appreciated, and will ultimately benefit elite athletes through the provision of improved ACE services.

Your consent to participate in the study will be implied by your return of the completed questionnaire. If you are under the age of 18 years you will be required, additionally, to attach a completed Parental Consent Form. Please return these in the enclosed replied paid envelope.

You are under no obligation to participate. Your involvement in your sport will not be affected in any way by your response to the questionnaire. No information is contained on the questionnaire that will enable you to be directly identified. Upon receipt of questionnaires from a minor, consent forms will be separated from questionnaires and will be stored separately to maintain the confidentiality of participants' responses. Coded information to allow the follow up of missing information will be destroyed at the conclusion of the study. The information you provide will be kept confidential to the researchers in the study, and only pooled information will be reported. All individual responses will be kept in a locked cabinet in the office of Dr Harriet Speed at Victoria University .

Your State Institute or Academy of Sport will receive a summary of the main findings and recommendations of this research at the completion of the program, and these findings can be made available to you if you wish.

If you have any queries about your participation in this project please contact the principal researcher, Dr. Harriet Speed (ph. 03 9689 8637). If you have any concerns about the way this research is conducted please contact the Secretary, University Human Research Ethics Committee, Victoria University , PO Box 14428 MCMC, Melbourne, 8001 (ph. 03 9688 4710), or the Secretary of the AIS Ethics Committee on (02) 6214 1816.

Thank you for your time spent in contributing to this research.

Dr. Harriet Speed
Lecturer ,School of HMRP
Victoria University, Ph (03) 9689 8637

Mr. Gavin Dagley

Appendix D: Parental Consent Form Study 1

Victoria University

Consent on Behalf of a Minor

CERTIFICATION BY PARENT/GUARDIAN OF A MINOR

I, _____
of_____

_____

hereby give my consent for my son / daughter / dependent _____

to participate in a human research study program entitled:

THE ATHLETE CAREER EDUCATION PROGRAM (ACE):
THE USEFULNESS OF ACE SERVICES AND COUNSELLOR TRAINING

being conducted at Victoria University by: *Dr. Harriet Speed* and *Mr. Gavin Dagley*

I have read the plain language statement that outlines the research and understand the purpose of the research is to assess the usefulness of aspects of ACE services and counsellor training.

Procedures:
Participants will complete a short survey, taking approximately 10 minutes. Participants will indicate the ACE services they have used, and their rating of the usefulness of the service. Participants will also provide an indication of the ACE services they found the most useful, that could be improved, and that they are interested in using in the future. Participants will also indicate their principal sport, years of competitive involvement, age, and sex.

Please phone Mr. Gavin Dagley or Dr. Harriet Speed (03 9689.8637) if you have any questions.

I voluntarily and freely give my consent to my child's / dependent's participation in such research study.

I certify that I have had the opportunity to have any questions answered and that I understand that I can withdraw my consent at any time during the study, in which event my child's/dependent's participation in the study will immediately cease and any information obtained will not be used.

I have been informed that the information will be kept confidential. I understand that only aggregated results will be reported and individual results will not be released to any person or organisation.

Signed: ..... } Date: .....
Parent/Guardian's signature

Any queries about your participation in this project may be directed to the researcher (Dr. Harriet Speed ph. 03 9689 8637). If you have any queries or complaints about the way you have been treated, you may contact the Secretary, University Human Research Ethics Committee, Victoria University , PO Box 14428 MC, Melbourne, 8001 (telephone no: 03-9688 4710).

Appendix E: Inventories Used in Study 2

The players who participated in Study 2 completed four outcome and two intervention inventories during their involvement in the study. These inventories were: the Career Decision Self-Efficacy scale - short form (Betz et al., 1996), the Career Decision Scale (Osipow et al., 1976), the Occupational Alternatives Question (Zener & Schnuelle, 1976), the Athletic Identity Measurement Scale (Brewer & Cornelius, 2001), the Self-Directed Search (Holland, Shears, & Harvey-Beavis, 2001), and the Reasons scale of the Career Decision Profile (Jones, 1989). All these inventories, except the Occupational Alternatives Question and the Athletic Identity Measurement Scale (which are reproduced below), are commercial products and subject to copyright, and have, therefore, not been reproduced in full in this thesis.

Occupational Alternatives Questions

(a) List all of the post-football occupations you are considering right now.

(b) Which occupation is your first choice? (if undecided, write undecided).

Athletic Identity Measurement Scale (AIMS)

Please circle the **number** that best reflects the extent to which you agree or disagree with each statement regarding your sport participation.

1. I consider myself an athlete.

Strongly disagree	1	2	3	4	5	6	7	Strongly agree

2. I have many goals related to sport.

Strongly disagree	1	2	3	4	5	6	7	Strongly agree

3. Most of my friends are athletes.

Strongly disagree	1	2	3	4	5	6	7	Strongly agree

4. Sport is the most important part of my life.

Strongly disagree	1	2	3	4	5	6	7	Strongly agree

5. I spend more time thinking about sport than anything else.

Strongly disagree	1	2	3	4	5	6	7	Strongly agree

6. I feel bad about myself when I do poorly in sport.

Strongly disagree	1	2	3	4	5	6	7	Strongly agree

7. I would be very depressed if I were injured and could not compete in sport.

Strongly disagree	1	2	3	4	5	6	7	Strongly agree

Appendix F: Information Sheet Study 2

Victoria University

INFORMATION TO PARTICIPANTS

The Athlete Career Education Program (ACE):
The Usefulness of ACE Services and Counsellor Training

As part of a research program on the usefulness of ACE services, we invite you to participate in study involving two sessions (one group and one individual) of career planning discussions.

Participation in the study is voluntary and is *not* a requirement of your team membership.

Half of the group of volunteers for this study will initially complete this training program prior to Christmas 2001, and the remaining half of the volunteers will complete the same training sessions in late January and early February 2002. You may be allocated to either the first or second training group.

Whether or not you were in the initial training group, prior to, immediately after, and four to six weeks after the delivery of the initial program, you will complete a short series of questionnaires. These questionnaires consist of a career indecision scale, a career decision-making self-efficacy scale, an athletic identity scale, two questions concerning the occupational alternatives you are considering, and a question concerning your stage of preparation for retirement from sport.

In completing these measures, you will be providing a self-assessment of career indecision, career decision-making self-efficacy, athletic identity, the occupational alternatives you are considering, and the stage of change in relation to retirement preparation behaviours using existing validated psychological instruments. Prior to completing the measures for the first time, the administrator will explain the measures, and their variability between individuals. After each administration, you will have the opportunity to discuss the measures and their experience, and ask any questions. Although it is not expected that you will become distressed or concerned, a counsellor (Dr Tony Morris Ph. 9688 5353) will be available for you should you wish to discuss any issues raised.

The information you provide will be invaluable in improving the services available through ACE. These improvements will help to reduce sport retirement difficulties for elite athletes, and provide valuable skills for athletes to use in their everyday lives. Your input into ACE research would be greatly appreciated, and will ultimately benefit elite athletes through the provision of improved ACE services.

To participate in the study you must be aged 16 years and over. Please complete and return the attached Consent Form (and Parental consent where under the age of 18 years), in the enclosed replied paid envelope.

You are under no obligation to participate, and you may withdraw at any time, with or without a reason. Your involvement in football will not be affected in any way by your response to the questionnaire. No information is contained on the questionnaire that will enable you to be directly identified. Consent forms will be stored separately from the questionnaires to maintain the confidentiality of the participants' responses. Coded information to allow the follow up of missing information will be destroyed at the conclusion of the study. The information you provide will be kept confidential to the researchers in the study, and only pooled information will be reported. All individual responses will be kept in a locked cabinet in the office of Dr Harriet Speed at Victoria University.

The Calder Cannons football club will receive a summary of the main findings and recommendations of this research at the completion of the program, and these findings can be made available to you if you wish.

If you have any queries about your participation in this project please contact the principal researcher, Dr. Harriet Speed (ph. 03 9689 8637). If you have any concerns about the way this research is conducted please contact the Secretary, University Human Research Ethics Committee, Victoria University, PO Box 14428 MCMC, Melbourne, 8001 (ph. 03 9688 4710).

Thank you for your time spent in contributing to this research.

Dr. Harriet Speed
Lecturer

Mr. Gavin Dagley

School of HMRP
Victoria University
Ph (03) 9689 8637

Appendix G: Consent Form Study 2

Victoria University

Consent Form for Participants Involved in Research

INFORMATION TO PARTICIPANTS:

We would like to invite you to be a part of a study into the usefulness of the Athlete Career Education program (ACE). A description of the study program is attached.

CERTIFICATION BY PARTICIPANT

I, _____

of _____

_____

certify that I am at least 18 years old, or between the ages of 16 and 18 years (and have attached parental consent), and that I am voluntarily giving my consent to participate in the research entitled:

THE ATHLETE CAREER EDUCATION PROGRAM (ACE):
THE USEFULNESS OF ACE SERVICES AND COUNSELLOR TRAINING

being conducted at Victoria University by: *Dr. Harriet Speed* and *Mr. Gavin Dagley*

I certify that the objectives of the research, together with any risks to me associated with the procedures listed hereunder to be carried out in the research, have been fully explained to me, and that I freely consent to participation involving the use on me of these procedures.

Procedures:

As a participant, you will complete a two-session programs on career planning, consisting of an individual and a group discussion session. You will complete the program as a member of one of two groups. The first group will complete the program prior to Christmas 2001, and the second group will complete the program in late January and early February 2002. You will complete self-assessed measures of career indecision, career decision-making self-efficacy, athletic identity, the occupational alternatives you are considering, and sport retirement preparation prior to, immediately after, and four to six weeks after completion of the initial program.

I certify that I have had the opportunity to have any questions answered and that I understand that I can withdraw from this research at any time and that this withdrawal will not jeopardise me in any way.

I have been informed that the information I provide will be kept confidential.

Signed: ..... }

Witness other than the researcher: } **Date:** .....

.....}

Any queries about your participation in this project may be directed to the researcher (Dr. Harriet Speed ph. 03 9689 8637). If you have any queries or complaints about the way you have been treated, you may contact the Secretary, University Human Research Ethics Committee, Victoria University , PO Box 14428 MC, Melbourne, 8001 (telephone no: 03-9688 4710).

Appendix H: Parental Consent Form Study 2

Victoria University

Consent on Behalf of a Minor

CERTIFICATION BY PARENT/GUARDIAN OF A MINOR

I, _____
of _____

_____

hereby give my consent for my son / dependent _____

to participate in a human research study program entitled:

THE ATHLETE CAREER EDUCATION PROGRAM (ACE):
THE USEFULNESS OF ACE SERVICES AND COUNSELLOR TRAINING

being conducted at Victoria University by: *Dr. Harriet Speed* and *Mr. Gavin Dagley*

I have read the plain language statement that outlines the research and understand the purpose of the research is to assess the usefulness of aspects of ACE services and counsellor training.

Procedures:
Participants will complete one of two identical two-session programs on career planning, consisting of an individual and a group discussion session. The first program will be run prior to Christmas 2001 and the second in late January and early February 2002. Participants may be allocated to either group. All participants will complete self-assessed measures of career indecision, career decision-making self-efficacy, athletic identity, the occupational alternatives they are considering, and sport retirement preparation prior to, immediately after, and four to six weeks after completion of the first training program.

Please phone Mr. Gavin Dagley or Dr. Harriet Speed (03 9689.8637) if you have any questions.

I voluntarily and freely give my consent to my son's / dependent's participation in such research study.

I certify that I have had the opportunity to have any questions answered and that I understand that I can withdraw my consent at any time during the study, in which event my son's/dependent's participation in the study will immediately cease and any information obtained will not be used.

I have been informed that the information will be kept confidential. I understand that only aggregated results will be reported and individual results will not be released to any person or organisation.

Signed: ..... } Date: .....
Parent/Guardian's signature

Any queries about your participation in this project may be directed to the researcher (Dr. Harriet Speed ph. 03 9689 8637). If you have any queries or complaints about the way you have been treated, you may contact the Secretary, University Human Research Ethics Committee, Victoria University , PO Box 14428 MC, Melbourne, 8001 (telephone no: 03-9688 4710).

Appendix I: Pre-Administration Verbal Instructions Study 2

Thanks for signing up for this program. You are going to have the chance to learn a bit about yourselves and your preferences, ask some questions, and take some steps that will be worth a lot to you in the future.

Tonight we are doing a pretty brief session to collect some preliminary data for the study. As a group we will be doing this data collection three times over the next few months. These sessions are about collecting your opinions about various aspects of your career – that is – these are NOT tests. There are no right and wrong answers. Also the measures are exactly as they appear. There are no secret, trick questions or clever interpretations. That is, these measures are simply to collect your opinions.

As you can work out for yourselves, it is really important that you are honest with yourselves when you answer this stuff, and that the answers are your own and not someone else's. The only people who will be able to link answers and faces are me, and my university supervisor. The information you give is the guts of the study. I'm in your hands. So please take it seriously.

I thought it would be good to give you a quick run down of what we are going to be doing in the program between now and the end of January. The purpose of the program is to see whether your opinions change over the course of the next few months. The program consists of data collection sessions, group sessions, and individual sessions. Everyone does the data collection sessions together. There are three of those and you will be answering the same set of questions each time.

The group sessions and individual sessions are when we get to spend some time together having a talk about careers and your ideas, and learning a bit about your interests, skills, and preferences using some career exploration measures. I'll go into those in more detail when we start the group sessions.

Half of you will do both the group and individual sessions before Christmas, and half of you will do them late in January. I have tried to make the split as random as possible.

Your commitment to the program is attending the data collection sessions (which will always be just before training), coming along to the allocated group session (which will take the place of a training session one night), and meeting with me individually for an hour sometime shortly after your group session (this will be the only session not associated with a training session).

Do you have any questions?

So tonight we need to do the first data collection session. You will all need a booklet and a pen. Once you've got these, I'll go through the instructions with you. If you have any questions about anything at any time then ask – that's what I'm here for.

ACE Counsellor Training Questionnaire

GQ1a

Please complete ALL FOUR sections

SECTION 1: ACE Counsellor Training Components

Instructions (Section 1):

For each of the ACE Counsellor Training components listed and described below, please complete the following tasks:

1. Please tick (√) the components for which you received credit through RPL (Recognition of Prior Learning), and then leave the rest of he line blank. Also, if you did not complete the component, leave the whole line blank.

2. For those components that you completed in full (i.e. did not receive RPL for) **circle the rating number** that best describes how useful you have found training in that component to be **in your ACE work with athletes**, AND THEN

3. **circle the rating number** that best describes how useful you have found training in that component to be **in building your ACE knowledge and skills.**

	RPL credit rec'd √	Usefulness in ACE work with athletes: not useful	a little useful	moderately useful	very useful	Usefulness in building knowledge and skills: not useful	a little useful	moderately useful	very useful
SPORT IN AUSTRALIA									
1.1 **Induction:** (Includes: definition of "elite athlete" / key components of ACE / recognition of prior learning)		0	1	2	3	0	1	2	3
1.2 **Structure of sport in Australia:** (Includes: structure of sport in Australia and its relationship to athletes / effective use of sporting bodies for athlete benefit / other sport structural issues that affect athletes)		0	1	2	3	0	1	2	3

Office Only:

	RPL credit rec'd √	Usefulness in ACE work with athletes				Usefulness in building knowledge and skills			
		not useful	a little useful	moderately useful	very useful	not useful	a little useful	moderately useful	very useful
1.3 National, Commonwealth, and Olympic representation (Includes: selection criteria / the appeals process / importance of communication with stakeholders)		0	1	2	3	0	1	2	3
1.4 Working with sporting groups: (Includes: sporting body issues relevant to the athlete / the roles of sporting organisation service providers)		0	1	2	3	0	1	2	3
COUNSELLING ISSUES									
2.1 Theories in career counselling: (Includes: career counselling models / the ACE counselling model)		0	1	2	3	0	1	2	3
2.2 The process of career counselling: (Includes: ethics / the counselling process / communication in counselling / issues affecting the counselling process / athlete responses to counselling / evaluation of the counselling process)		0	1	2	3	0	1	2	3
2.3 Role of the parent in sport: (Includes: people involved in the athlete's lives / important issues for athletes' parents / importance of planning / traps for sport parents / clarifying the parents' role in the athlete's world)		0	1	2	3	0	1	2	3
2.4 Athlete issues: (Includes: athletes' major sporting career issues / strategies to address athlete issues)		0	1	2	3	0	1	2	3
THE ACE PROGRAM									
3.1 Instruction principles and practice: (Includes: ACE training opportunities / athlete training needs / training session development / conducting a training session / training communication strategies / observation and evaluation of an individual training session / ACE training records)		0	1	2	3	0	1	2	3

Office Only:
>> <<

	RPL credit rec'd √	Usefulness in ACE work with athletes				Usefulness in building knowledge and skills			
		not useful	a little useful	moderately useful	very useful	not useful	a little useful	moderately useful	very useful
3.2 **ACE administration:** (Includes: ACE support materials and file note system / development of ACE support materials / the use of professional referrals)		0	1	2	3	0	1	2	3
3.3 **ACE assessment:** (Includes: key components / implementation / evaluating assessment effectiveness / selection and interpretation of vocational assessment tools)		0	1	2	3	0	1	2	3
3.4 **Education planning:** (Includes: key components of the educational system / effective educational planning implementation)		0	1	2	3	0	1	2	3
3.5 **Career planning:** (Includes: implementing effective career planning / career planning counselling skills / creating, maintaining and enhancing business sector links)		0	1	2	3	0	1	2	3
ACE PRACTICUM									
4.1 **Industry practicum:** (Includes: observation and role playing / initial counselling / supervised counselling / independent counselling)		0	1	2	3	0	1	2	3
4.2 **Presenting reports:** (Includes: researching information for an ACE counselling session / information analysis and solution development / production of an investigative document / delivery of an oral presentation)		0	1	2	3	0	1	2	3
4.3 **Workplace safety** (Includes: completion of Occupational Health and Safety course, level 1		0	1	2	3	0	1	2	3

Office Only:

SECTION 2: ACE Counsellor Training Methods

Instructions (Section 2):

For each of the ACE Counsellor Training methods listed below please

circle the rating number that best describes how useful you have found the method or resource to be in building your ACE knowledge and skills.

	Usefulness Rating>>>>>			
	not useful	a little useful	moderately useful	very useful
Researching and writing assignments	0	1	2	3
Observation of counselling sessions	0	1	2	3
Practical exercises (e.g. development of networks, writing checklists)	0	1	2	3
Supervised counselling practice	0	1	2	3
Resource and reference lists provided in training	0	1	2	3

Office Only:
>> <<

SECTION 3: Other Useful Skills and Knowledge

1. (a) What else in your ACE Counsellor Training have you found to be particularly useful in your ACE work with athletes?

(b) What else in your ACE Counsellor Training have you found to be NOT useful in your ACE work with athletes?

Office Only:

2. We are also interested in the skills and training you have received from outside the ACE Counsellor Training program.

(a) What other skills and knowledge, NOT covered in your ACE Counsellor Training, have you found to be particularly useful in your ACE work with athletes?

(b) Where did you learn these other skills and knowledge?

Office Only:
>> <<

SECTION 4: General Information

Introduction: Some general information about you will help us to understand the information you have provided.

Please advise:

Age in years

Sex (M/F)

ACE Counsellor Training completion date (month / year) /

Principle current occupation

Number of years working with athletes in an athlete career education-related role

Thank you for your time. The information you have provided will be very helpful to us.

Please return the survey in the reply paid envelope provided.

Office Only:

Appendix K: Covering Letter Study 3

Victoria University

Hi

RE: ACE RESEARCH PROJECT –
ACE COUNSELLOR TRAINING GRADUATES

I am writing to introduce myself to you, to outline the research project I am undertaking, and to ask for your help.

My name is Gavin Dagley, and I am a PhD student at Victoria University in Melbourne. Early this year I approached the Australian Institute of Sport (AIS) and asked if they would support a research project on the Athlete Career Education program (ACE). The research involves ACE Counsellor Training Graduates (you) completing a 20-minute questionnaire about various aspects of ACE services.

The AIS has lent its support to the project, and I am hoping that you can spare the time to help by completing the attached questionnaire.

WHAT YOU DO:

- Read the attached Information for Participants
- Complete the questionnaire
- Drop the completed questionnaire in the post in the enclosed reply paid envelope.

If you have any questions you can contact my supervisor, Dr Harriet Speed, or me by:
Phone: Victoria University Ph (03) 9689 8637
or email: Dr Speed at - harriet.speed@vu.edu.au or Gavin at - dougal9@yahoo.com

Thanks for your help.

Gavin Dagley

Appendix L: Information Sheet Study 3

Victoria University

INFORMATION TO PARTICIPANTS

The Athlete Career Education Program (ACE):
The Usefulness of ACE Services and Counsellor Training

The Athlete Career Education program (ACE) is a service offered all scholarship holders through their State Institute or Academy of Sport, or the Australia Institute of Sport. The quality of training provided to ACE counsellors is an important component in the quality of the program. The enclosed questionnaire is for ACE counsellor training graduates who completed their training at least 12 months ago. The purpose of the questionnaire is to establish which components of the ACE counsellor training you have found useful in your work with athletes on ACE-related issues.

We invite you to take part in this important research study.

The questionnaire will take about 20 minutes to complete, and is in three sections. The first section provides a list of the components of ACE counsellor training. In the first two sections you are asked to indicate how useful in practice you find each component and training method. In the third section you are asked to describe other aspects of the training you found particularly useful or not useful, and the skills you have acquired from non-ACE sources that you have found useful in practice. In the final section you are asked to provide your age, sex, date of completion of your ACE Counsellor Training, current area of work, and number of years spent working with athletes in a counselling, coaching, or managing role.

The information you provide will be invaluable in improving ACE counsellor training, and thereby helping to reduce sport retirement difficulties for elite athletes, and providing valuable skills for athletes to use in their everyday lives. ACE services are used to a greater or lesser extent by all scholarship holding athletes. Your input into ACE research would be greatly appreciated, and will ultimately benefit both counsellors and elite athletes who use ACE services.

To participate in the study please complete the questionnaire, and return it in the enclosed replied paid envelope. Your consent to participate in the study will be implied by your return of the completed questionnaire.

You are under no obligation to participate. Your professional work will not be affected in any way by your response to the questionnaire. No information is contained on the questionnaire that will enable you to be directly identified. Coded information to allow the follow up of missing information will be destroyed at the conclusion of the study. The information you provide will be kept confidential to the researchers in the study, and only pooled information will be reported. All individual responses will be kept in a locked cabinet in the office of Dr Harriet Speed at Victoria University .

Your local State Institute or Academy of Sport will receive a summary of the main findings and recommendations of this research at the completion of the program, and these findings can be made available to you if you wish.

If you have any queries about your participation in this project please contact the principal researcher, Dr. Harriet Speed (ph. 03 9689 8637). If you have any concerns about the way this research is conducted please contact the Secretary, University Human Research Ethics Committee, Victoria University, PO Box 14428 MCMC, Melbourne, 8001 (ph. 03 9688 4710), or the Secretary of the AIS Ethics Committee on (02) 6214 1816.

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Thank you for your time spent in contributing to this research.

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