SELF-EFFICACY AND SOCIAL SUPPORT OF ACADEMY CRICKETERS

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ABSTRACT

Self-efficacy is considered to be a significant variable for enhancing all aspects of human performance (Druckman, 2004). Social support may influence self-efficacy through each of the four channels of self-efficacy information which consist of performance accomplishments, vicarious experience, verbal persuasion and physiological responses (Bandura, 1997). The primary aim of this study was to explore and describe the nature of change that occurred in self-efficacy and received social support of university-age academy cricketers over the duration of an academy programme. The secondary aim was to explore and describe the relationship between the two constructs, self-efficacy and social support.

Sixty-five male, university-age (18-25 years) provincial academy cricketers completed a social support measure and a self-efficacy measure specifically designed for the purposes of this study. These measures were based on Rees and Freeman’s (2007) items and Cox, Martens and Russell’s (2003) revised Competitive State Anxiety Inventory-2 (CSAI-2 - Martens, Burton, Vealey, Bump & Smith, 1990) respectively. The perceived pre- and post-academy personal ratings of self-efficacy and social support, obtained prior to the start of the South African Interprovincial Academy Cricket week, referred to participants’ perceptions before and after attending their respective provincial academies. An inferential pre-experimental post-pretest design was used. The results included significant changes found in self-efficacy, esteem social support, informational social support and tangible social support over the academy season. There were no differences attributed to the length of time a cricketer had spent at the academy or to the cricketer’s highest level of achievement in cricket. The only significant correlation that existed between self-efficacy and social support was the correlation between self-efficacy and
informational social support. This study provided an initial insight into the role of self-efficacy and social support in talented cricketers, especially in a South African context.

Key words: self-efficacy, social support, informational social support, academy, cricket
CHAPTER 1
INTRODUCTION

1.1. Context of the research

Self-confidence is one of the most frequently cited psychological factors considered to influence athletic performance and has been called the most critical cognitive factor in sport (Feltz, 1984; Gill, 1986). It is acknowledged that in addition to self-confidence, appropriate support and training are essential if talented individuals are to fulfill their potential (Abbott & Collins, 2004). High achievement is increasingly being attributed to an interaction between unusual talent combined with high motivation (Heller & Viek, 2000; Ziegler & Raul, 2000). Research practitioners have begun to show an awareness and acceptance that talent goes beyond the physical (Thomas & Thomas, 1999). The goals of talent development research are to understand the development of talent, to shorten the journey on the path to expertise and to extend one’s ability to perform at a peak level on numerous occasions (Starkes, Helsen & Jack, 2001). Durand-Bush and Salmela (2001) have stated that an important step for researchers is to determine how valuable practice, family support, competent coaches, adequate physical resources and psychological characteristics can be capitalized on. For this reason, it is important to consider an interactional approach to talent development research (Singer, Hausenblas & Janelle, 2001) that considers the interaction of nature (genetics), nurture (practise), situational factors (parents, coaches and teammates) and psychological skills (self-efficacy) in the development of talent and expertise in sport (Morgan & Giacobbi, 2006). By considering the possible interrelatedness of situational factors such as parents, coaches, teammates, significant others and socioeconomic status with perceived genetics, practise and psychological skills, it
may be possible to develop a complete understanding of how certain individuals develop their talents during their athletic careers (Bloom, 1985; Côte, 1999).

Parents play a significant role in the enjoyment, success and continuation of play and physical activity of a child, irrespective of the movement potential of the child (Coakley, 1990; Walker, 1993). People tend to demonstrate competence in areas in which they perceive themselves to have above average abilities (Potgieter, 2003). Talented children’s and adolescents’ commitment to developing their talent has been associated with features of the family and home environment (Bloom, 1985; Csikszentmihalyi, Rathunde & Whalen, 1993; Monsaas & Engelhard, 1990) and with adult figures such as coaches, teachers and mentors (Bloom, 1985; Csikszentmihalyi et al., 1993; Scanlan, Carpenter, Lobel & Simons, 1993; Weiss & Petlichkoff, 1989). Research shows that children who perceive themselves as physically competent are interested and motivated to improve skill, whereas children who feel stronger socially are motivated by the affiliation aspects of sport participation (Klint & Weiss, 1987). Conversely, if a young athlete’s attempts at mastery result in perceived rejection and failure, low competence motivations and negative affect will be the end product. It is hypothesized that low competence motivation will result in a youth sport dropout. Although generally considered an influencing factor in sports, there is a lack of research evidence that exists on social support related to sports success (Rees & Freeman, 2009). Understanding the links between social support and performance could be used effectively in more fully appreciating the link between social support and well-being (Rees & Freeman, 2009). Self-efficacy (Bandura, 1997) may be a significant cognitive mediator of the relationship between social support and a variety of health promoting behaviours and psychological outcomes (Duncan & McAuley, 1993; Major, Cozzarelli, Sciacchitano, Cooper & Testa, 1990; Saltzman & Holahan, 2002). A number of research studies have been undertaken regarding self-efficacy and
its role as a key variable for enhancing all aspects of human performance (Druckman, 2004). Research conducted in South Africa on self-efficacy and social support of athletes in sport is lacking. The present researcher could not locate any such South African studies. The results from international studies are refutable and, as a whole, inconclusive. The lack of South African research and the inconclusiveness of international studies on self-efficacy and social support have prompted the need for the present study.

1.2. Motivation for study and problem statement

In recent years there has been an increase in research interest related to self-efficacy and social support in sport, especially by Rees and his colleagues (2007, 2009). In the limited international research done, self-efficacy and social support are emerging as important components of sport performance. As mentioned above, the results from international studies are refutable and, as a whole, inconclusive. Research conducted in South Africa on self-efficacy and social support of athletes in sport is lacking. The present researcher could not locate any such South African studies. The lack of South African research and the inconclusiveness of international studies on self-efficacy and social support have prompted the need for the present study within the unique South African context. Rees and Hardy (2004) recommended that research related to self-efficacy and social support be undertaken in various contexts using different outcome measures.

Academy cricketers are selected for a provincial academy based on having achieved a certain level of cricket excellence as well as showing potential in cricket (www.stgeorgespark.co.za). The ability of a player to commit himself to the learning process is also considered during selection (www.stgeorgespark.co.za). Although there is no age limit to those cricketers selected-
to a provincial academy, players within the 18-22 year age group are considered the best candidates (www.stgeorgespark.co.za). A South African cricket academy runs for six months during which academy cricketers develop cricket skills and techniques, mental attitude, media skills and general cricket etiquette (www.stgeorgespark.co.za). Academy cricketers are exposed to competitive situations during this period which allows them to develop experience in these competitive situations.

The main purpose of this study was to explore and describe the nature of change that occurred in self-efficacy and received social support of university-age academy cricketers over the duration of an academy programme. The secondary aim was to explore and describe the relationship between the two constructs, self-efficacy and social support. A more specific aim - to explore and describe the correlations between the two constructs, self-efficacy and social support – was generated to achieve the secondary aim of the present research.

Self-efficacy is considered to be a significant variable for enhancing all aspects of human performance (Druckman, 2004). Social support may influence self-efficacy through each of the four channels of self-efficacy information which consists of performance accomplishments, vicarious experience, verbal persuasion and physiological responses (Bandura, 1997).

1.3. Concept clarifications

To avoid later confusion, this section aims to describe various key concepts that are relevant for the present study. Since sport psychology is a relatively new field within psychology, some concepts are in the process of being refined and are continuously evolving. Research in sport psychology has barely scratched the surface in developing an understanding of the area of self-
confidence in sport (Vealey, 2001). There is much debate as to the most accurate definition. It is for this reason that confidence is not an easy term to precisely define.

Weinberg and Gould (1995) found that sport psychologists generally define self-confidence as “the belief that you can successfully perform a desired behaviour” (p. 300). Optimal self-confidence means being completely convinced that one can achieve one’s goals. It is this strong belief that will help an athlete to deal effectively with setbacks and keep the athlete striving towards success.

Bandura (1977) brought together the concepts of self-confidence and outcome expectations to formulate a clear and useful conceptual model of self-efficacy. Hall, Martin, Moritz and Vadocz (1996) stated that “self-efficacy refers to an individual’s conviction that he or she can be successful at specific sport tasks, skills or under specific conditions” (p. 172). Some sport psychologists use the two terms self-confidence and self-efficacy interchangeably as it is viewed that self-efficacy is simply a situation-specific form of self-confidence. In 1997, Bandura redefined self-efficacy to include those beliefs regarding individuals’ capabilities to produce performances that will lead to anticipated outcomes. This is now termed self-regulatory efficacy (Feltz, Short & Sullivan, 2008), which focuses more on one’s abilities to overcome obstacles or challenges to performance. For the purpose of the present study, self-efficacy is defined as an individual’s conviction that he or she can be successful at specific sport tasks, skills or under specific conditions (Hall et al., 1996).

Taylor, Peplau and Sears (2003) referred to social support as interpersonal exchanges in which one person aids or assists another. This help comes in various forms: emotional, informational, esteem or tangible. Emotional support refers to concern expressed through liking, love or empathy. Informational support is related to the provision of details specific to a stressful
situation that may be beneficial to the person receiving the news. Esteem support refers to supportive information relating to self-appraisal, or the way in which one perceives oneself, whilst tangible support describes the provision of goods or services during stressful times. In the present study, Taylor et al.’s (2003) conceptualization of social support as described above is adopted.

Hornby (1995) defined an academy as “a school or college, especially for specialized training”. For the purposes of the present study, a cricket academy refers to the specialized cricket instruction that occurs within various provincial cricket training institutions in South Africa. The purpose of provincial cricket academies in South Africa is to take a cricketer with potential, usually in his late teens to early twenties, and develop the cricketer in terms of talent, knowledge and mental skills so that the cricketer can go on to represent both province and country (www.stgeorgespark.co.za). A provincial cricket academy season in South Africa runs for approximately six months and culminates with the South African Interprovincial Academy week in which the various provincial cricket academies compete against each other.

1.4. Overview of chapters

Chapter one provides an introduction to the current research and discusses the context within which this study was conducted. It includes the clarification of various concepts that are used throughout the present study.

Chapter two explores the literature that has previously been conducted relevant to self-efficacy and social support. A detailed explanation is given of the theories underpinning self-efficacy and social support. Global trends and the limited literature available on South African
trends are reviewed. Literature related to various sports as well as various samples of sporting abilities is investigated.

Chapter three outlines the research design and methodology implemented in the present study. The sampling procedure, research procedure, measures used to gather data and the data analyses are discussed. A review of the ethical considerations related to the present study is also included.

Chapter four presents the results of the research combined with a discussion associating the results to the literature reviewed in chapter two.

Chapter five provides the conclusions of the study. These are based on the research results presented in chapter four. Recommendations for future research and implications for practice in the field of self-efficacy and social support are made based on the research design, methodology and results of the research. The limitations of this study are also outlined.

1.5. Chapter conclusion

Chapter 1 provided an introduction to the context in which the current study was conducted. The need for the study was then discussed, after which the aims were presented. The chapter was concluded with an outline of the forthcoming chapters in this treatise. Chapter 2 reviews the literature related to self-efficacy and social support.
CHAPTER 2
LITERATURE REVIEW

2.1. Chapter overview

Chapter 2 presents the current state of knowledge as well as compares contrasting literature related to self-efficacy and social support in sport. Chapter 2 presents a brief description of the research that has been done respectively on self-efficacy, on social support and on self-efficacy and social support in combination. The chapter begins with a focus on the various theories related to self-efficacy, followed by research done on motivation and outcome expectancy related to self-efficacy, which is then followed by research done on self-efficacy related to sports performance. A description of social support theory is presented after which a summary of research done on social support related to sports involvement is given. Chapter 2 concludes with a summary of research related to both self-efficacy and social support.

2.2. Self-efficacy

Personal excellence is largely a matter of believing in one’s capabilities and combining these beliefs with perseverance and commitment in achieving success in a given task (Yukelson, 1984). However, capability is only as good as its execution and a factor that appears crucial in achieving personal excellence is an individual’s level of self-efficacy. The feeling that something is wrong, or that something may go wrong can destroy the performance of even highly skilled individuals. Ambiguity and uncertainty generate mental distractions and physiological changes that can destroy performance (Nideffer & Sagal, 2001).
Most sport performance problems are complicated, or worsened, by anxiety and a lack of self-confidence. But no matter how confident an individual is, there will be times when that confidence disappears and when it does, especially for highly confident individuals, it can be difficult to recover and sport performance temporarily suffers. Efficacy expectations determine how much effort people expend on a task and how long they will persist in the face of adversity or setbacks (Bandura, 1994). In order to understand the sources and influences of self-efficacy and social support, insight into the existing theories and research pertaining to these concepts is provided.

2.2.1. Theories of self-efficacy

The following section presents the various theories relevant to self-efficacy. The theories are presented in chronological order, beginning with Harter’s theory of competence motivation (1978), followed by Bandura’s theory of self-efficacy (1977, 1982, 1997) and Vealey’s model of sport-confidence (1986, 2001).

2.2.1.1. Harter’s theory of competence motivation

In her theory of competence motivation, patterned after White’s (1959) theory of effectance motivation, Harter (1978) proposes that people strive for competence in most areas of their lives. In order to satisfy the urge to be competent in an achievement area such as a sport, a person attempts mastery. The individual’s self-perception of success at these mastery attempts gives rise to feelings of positive or negative affect. Successful attempts at mastery give rise to self-efficacy and feelings of personal competence and increase the likelihood of an athlete attempting mastery in a future similar situation (Potgieter, 2003).
People tend to demonstrate competence in areas in which they perceive themselves to have above average abilities (Potgieter, 2003). Research shows that children who perceive themselves as physically competent are interested and motivated to improve skill, whereas children who feel stronger socially are motivated by the affiliation aspects of sport participation (Klint & Weiss, 1987). Conversely, if a young athlete’s attempts at mastery result in perceived rejection and failure, low competence motivation and negative affect will be the end product. It is hypothesized that low competence motivation will result in a youth sport dropout (Klint & Weiss, 1987). Figure 1 below presents a visual outline of Harter’s (1978) competence motivation theory.

Figure 1. Harter’s (1978) competence motivation theory
2.2.1.2. Bandura’s theory of self-efficacy

Bandura (1977) defines self-efficacy as “beliefs in one’s capabilities to organize and execute the courses of action required to produce given attainments” (p. 3). Assuming that an individual is capable of a response and that appropriate incentives are available for optimal performance, Bandura (1977) asserts that an individual’s actual performance will be predicted by the individual’s belief in his/her personal competence. Successful attempts at mastery give rise to self-efficacy and feelings of personal competence, and increase the likelihood of an athlete attempting mastery in a future similar situation (Potgieter, 2003). If a person believes he/she is in control and that he/she has the power to produce specific results, he/she will be motivated to make things happen (Cox, 2007).

Bandura’s theory of self-efficacy (1977, 1982) proposes that self-efficacy is fundamental to competent performance. Figure 2 below shows Bandura’s (1977) model of self-efficacy which states that self-efficacy is enhanced by successful performance, vicarious experience, verbal persuasion and emotional arousal.

![Figure 2. Bandura’s (1977) model of the relationship between factors leading to self-efficacy beliefs and athletic performance (Weinberg & Gould, 2003, p. 317)](image_url)
Each of the above elements is critical in understanding how an athlete can develop self-efficacy and self-confidence:

1. Successful performance – The athlete must experience success in order for self-efficacy to develop (Cox, 2007). If experiences are generally successful, an athlete’s level of self-efficacy will increase. However, repeated failures will result in decreased efficacy expectation (Weinberg & Gould, 1995).

2. Vicarious experience – Athletes who are just starting out can experience success through the use of models (Gill & Williams, 2008). Vicarious experience includes watching another person accomplish a specific skill and, as a result, gaining confidence that that person too can accomplish the specific task (Weinberg & Gould, 1995). Several studies have demonstrated the effectiveness of using models, particularly those who are similar to the observer (George, Feltz & Chase, 1992; Weiss, McCullaugh, Smith & Berlant, 1998). The vicarious experience of success provides a good foundation for the experience of success in an actual, not simulated, situation (Cox, 2007).

3. Verbal persuasion – Coaches, teachers, peers and parents often use persuasive techniques to influence behaviour. These people are important to athletes and can be helpful in encouraging self-efficacy (Weinberg & Gould, 1995). Helpful verbal statements that suggest an athlete is competent and can succeed are most desirable (Cox, 2007).

4. Emotional arousal – Bandura (1997) suggests that perceptions of arousal affect behaviour by changing efficacy expectations. Treasure, Monson and Lox (1996) established that the higher a wrestler’s positive emotional states were (e.g., determined, excited, inspired), the greater the self-efficacy; the higher the negative emotional states, the lower the self-efficacy. Feltz (1984) suggested that if an athlete’s perception of arousal changes from negative to positive, self-
efficacy should be enhanced. However, evidence corroborating this is, as yet, inconclusive. The
most important of these four factors is successful performance. According to Bandura (1997),
successful performance raises expectations for future success, and failure lowers these
expectations.

An individual may create and develop self-efficacy beliefs as a result of verbal persuasions
that he/she may receive from others. These persuasions involve contact with verbal judgments
that others provide. Although it is a weaker source of efficacy information than successful
performances or vicarious experiences, persuaders can play an integral part in an individual’s
beliefs (Zelden & Pajares, 1997). It is important that a persuader cultivates an individual’s belief,
whilst still ensuring that the envisioned success is attainable. Bandura (1986) asserts that it is
usually easier to weaken self-efficacy beliefs through negative appraisals than to strengthen the
same beliefs through positive encouragement.

Schwarzer (1992) refers to self-regulatory processes that mediate between intentions and
actions. This action control is strongly influenced by self-efficacy expectations as well as
perceived situational barriers and support. Individuals possess a self system that enables them to
exercise a measure of control over their thoughts, feelings, motivations and actions (Bandura,
1986). This is done by perceiving, regulating and evaluating behaviour, which results from the
interplay between the system and environmental sources of influence. As such, it serves a self-
regulatory function by providing individuals with the capacity to influence their own cognitive
processes and actions, thereby altering their environment. Through the process of self-reflection,
individuals are able to evaluate their experiences and thought processes (Bandura, 1986). It
therefore stands that what people know, the skills they possess, or what they have previously
accomplished are not always good predictors of subsequent achievements. The beliefs that an
individual holds about his/her abilities are critical in influencing behaviour. The process of creating and using these self-beliefs is an intuitive one: individuals engage in a particular behaviour, interpret the results of their actions, use these interpretations to create and develop beliefs about their capability to engage in subsequent behaviours in similar domains and behave in accordance with the beliefs created (Bandura, 1986).

2.2.1.3. Vealey’s model of sport-confidence

In pursuit of a sport-specific approach to confidence, Hardy, Jones and Gould (2003) distinguished between self-efficacy and sport-confidence as a “micro-level” and “macro-level” of self-confidence respectively. The micro-level of self-efficacy, as described in self-efficacy theory, is connected with specific skills in practice. Sport-confidence focuses chiefly on the global level of self-confidence.

Building on work done on self-confidence, Vealey (1986) introduced the conceptual framework of sport-confidence. Sport-confidence was differentiated into two one-dimensional constructs termed trait sport-confidence (SC-trait) and state sport-confidence (SC-state). Also included was a dispositional construct termed competitive orientation, which included outcome and performance-oriented goals. An athlete may, over time, have developed one of these goal orientations more strongly based on previous competence and success (Vealey, 1986). The athlete brings to an objective competitive situation a personality trait of sport-confidence (SC-trait) and a particular competitive orientation (outcome or performance-oriented goals). These two factors then combine to be indicative of the level of state sport-confidence (SC-state) that an athlete displays during competition. This SC-state then influences behavioural responses, which give rise to perceived subjective outcomes. These subjective outcomes in turn influence and are
influenced by the athlete’s competitive orientation and SC-trait. Figure 3 below illustrates Vealey’s (1986) conceptual model of sport-confidence.

Vealey’s sport-confidence model is useful for explaining the relationship between general sport-confidence and situation-specific sport-confidence (Cox, 1990). However, several limitations led to a re-conceptualisation of the original model. These limitations of the original model included the failure of state sport-confidence to predict performance and failure of the
model to conceptualise measures of sport-confidence as being multidimensional in nature. To address these limitations, Vealey, Knight and Pappas (2002) developed a revised model of Vealey’s (1986, 1988) model of sport-confidence; the multidimensional model of sport-confidence which is depicted below in figure 4.

Figure 4. Vealey’s (2001) multidimensional model of sport-confidence (Singer, Hausenblas & Janelle, 2001, p. 555)
Vealey’s (2001) multidimensional model of sport-confidence views sport-confidence as a multi-dimensional construct lying on a continuum that ranges from trait-like to state-like and focuses primarily on the constructs, sources and consequences of sport-confidence. Vealey, Hayashi, Garner-Holman and Giacobbi (1998) identified and discriminated between different sources of confidence underlying and affecting the level of sport-confidence. Nine sources of sport-confidence were established, which were categorized into domains of achievement (mastery, demonstration of ability), self-regulation (physical and mental preparation, physical presentation) and social climate (social support, coaches’ leadership, vicarious experience, environmental comfort, situational favourableness). The original model of confidence was extended by viewing the athlete as functioning within a unique sociocultural context, rather than a situational context. This sociocultural context involves the organisational culture and individual characteristics of the athletes. Both of these sources are thought to have a significant influence on the sources of sport-confidence. Vealey et al. (1998) observed which sources were most important for athletes. For college-age athletes participating in individual sport, the top five sources were physical and mental preparation, social support, mastery, demonstration of ability and physical self-presentation. The distinct social nature of sport suggests that social support, outside of verbal persuasion, may be a significant source of confidence (Feltz et al., 2008).

Vealey’s (2001) model of sport-confidence is a relatively untested approach to conceptualizing achievement motivation and self-confidence in sport (Cox, 2007). Vealey’s (2001) model is situation-specific and represents a legitimate attempt at theory development within the discipline of sport psychology. The majority of theories to date have been borrowed from the parent discipline of psychology and subsequently applied to sport (Cox, 1990).
2.2.2. Self-efficacy, motivation and outcome expectancy

Self-beliefs of efficacy play a significant role in the self-regulation of motivation (Bandura, 1994). Most human motivation is cognitively generated. By forming beliefs about what they can do, people anticipate the likely outcomes of prospective actions. Those who have a high sense of self-efficacy visualize success situations that provide positive guides and supports for performance. People who regard themselves as highly efficacious attribute their failure to insufficient effort; those who regard themselves as inefficacious attribute their failures to a lack of ability (Bandura, 1994). Motivation has been defined as the intensity and direction of effort (Weiss & Ferrer Caja, 2002). Motivation is regulated by the expectation that a given course of behaviour will produce certain outcomes. The motivating influence of outcome expectancy is thus partly governed by self-efficacy. According to Bandura (1994), there are countless attractive options that people do not pursue because they judge that they do not have the necessary capabilities.

Achievement goal theory (Nicholls, 1984, 1989) assumes that the achievement goal of demonstrating ability is the primary motivational stimulus in achievement contexts such as sport. Two conceptions of competence manifest themselves through task and ego involvement. If a person is task involved, perceived ability is self-referenced and emphasis is placed on task mastery, the amount of effort exerted and the development of a person’s skill or knowledge in the activity. A perceived task-involving climate involves competence being thought of in a self-referenced manner (Reinboth & Duda, 2004). Success is defined by mastery, improvement and hard work. When ego involved, a person is concerned with demonstrating ability by performing better than his/her peers or performing equally, but with less effort. In a perceived ego-involvement climate, feelings of competence are likely to be based on being able to demonstrate
competency relative to others (Dweck, 1999; Nicholls, 1989) or achieving an externally referenced standard of excellence (Deci & Ryan, 1985). Reinboth and Duda (2004) examined the perceived motivational climate and perceptions of ability to indices of physical and psychological well-being amongst 265 male adolescent soccer and cricket players. Reinboth and Duda (2004) found that in order to improve an adolescent’s psychological and physical well-being in sport, creating a strong task-involving climate is important to improve perceived competence.

While there are numerous personal and situational determinants of motivation in sport, the role of the coach seems particularly important (Horn, 2002; Weiss & Ferrer Caja, 2002). According to Deci and Ryan’s (1985; Ryan & Deci, 2000, 2002) self determination theory, intrinsic motivation is the most self-determined type of motivation. Intrinsic motivation is not only influenced by perceived competence and autonomy, but also perceptions of relatedness (Ryan & Deci, 2002). Elements of coaching behaviours in Hollembeak and Amorose’s (2005) study indicated that coaching behaviours were significant predictors of relatedness, and relatedness was found to be a significant predictor of intrinsic motivation. Relatedness represents the need to feel connected to those around us. The need for competence concerns the need to perceive our behaviour as effective (Hollembeak & Amorose, 2005). The relationship between relatedness and intrinsic motivation was stronger than the relationship between perceived competence and intrinsic motivation. Amorose and Horn (2000) found higher levels of social support were positively associated with components of intrinsic motivation. However, Hollembeak and Amorose (2005) found that social support was not a good predictor of intrinsic motivation.
Similar to Nicholls’ (1984, 1989) two conceptions of competence being ego- and task-involvement, Vealey (1988) conceptualized an individual’s outcome orientation or performance orientation to account for differences in how individuals define success in sport. In Vealey’s (1988) study of high school, college and elite athletes, Vealey found that elite athletes were more performance-oriented than their college and high school counterparts. This suggests that elite athletes base their feeling of competence and satisfaction on how well they are performing. Also, there were no gender differences in confidence found between male and female athletes. This was not the case in high school and college athletes. Vealey (1988) raised the question of whether these athletes progressed to elite level because of high levels of confidence or whether their confidence levels improved due to being an elite athlete.

An important aspect of Bandura’s (1977) theory is the differentiation between self-efficacy and outcome expectancy. Bandura defines outcome expectancy as a person’s expectation that a specific behaviour will lead to a certain outcome (Bandura, 1977). The difference between the two is explained by the fact that a person can believe that what he or she does will lead to specific outcomes (outcome expectancy), but he or she may doubt his or her ability to successfully execute a particular behaviour (self-efficacy). Some interesting studies have demonstrated the relationship between expectations and performance. In Nelson and Furst’s (1972) study, participants were paired with someone they incorrectly thought was superior in arm strength and then given the instruction to arm wrestle. In 10 of the 12 contests, the objectively weaker participant – who both believed was stronger – won the contest.

Within a South African context, Steenkamp and Potgieter (1995) investigated the relationship between self-motivation, self-efficacy and exercise adherence amongst 35 low-active individuals. Seventeen participants were assigned to an experimental group and 18 to a control
group. Over a period of eight weeks, both groups were lectured on aspects related to improving exercise adherence. Only the experimental group was given strategies on how to increase self-efficacy. At no stage during the 8-week programme was there a change in self-motivation for either group. Steenkamp and Potgieter (1995) expressed that this may have been the result of self-motivation playing no part in increased exercise adherence. Alternatively, the experimental group programme may not have been long enough (Steenkamp & Potgieter, 1995).

The degree to which an individual requires and invests in motor activity depends on demographic and situational variables such as age, opportunities afforded by social and physical environments and personal characteristics (Grundlingh & Van Staden, 1998/1999). Early success and failure, as well as perceptions thereof, combined with support and encouragement from the coach, peers and parents are likely to considerably determine a young athlete’s persistence with an activity during childhood and adolescence.

2.2.3. Self-efficacy and sports performance

Before 1954, most people claimed that it was inconceivable to run a mile in less than four minutes. Many runners were timed seconds short of the elusive four-minute barrier. This further reinforced the notion that running the mile in below four minutes was physiologically impossible. Roger Bannister believed, without a doubt, that he was capable of breaking this elusive barrier – and he did. He achieved the impossible and in the following year a dozen or more runners achieved the same feat. Runners finally believed that the seemingly impossible was possible (Weinberg & Gould, 2003).

While there has been a vast amount of research into self-efficacy and exercise behaviours, research has also considered the association between self-efficacy and performance (Marcus,
Selby, Niacura & Rossi, 1992). Research has consistently shown a positive relationship between self-efficacy and sport performance (Moritz, Feltz, Fahrback & Mack, 2000). Self-efficacy has particularly been shown to be strongly related to performance when sport competitors are evenly matched (Kane, Marks, Zaccaro & Blair, 1996). In their meta-analysis, Moritz et al. (2000) showed that the average correlation between self-efficacy and sport skill performance was $r = 0.38$. Lowther, Lane and Lane (2002) found that the way that self-efficacy is measured has been found to influence the strength of self-efficacy-performance relationships. Lowther and his colleagues (2002) investigated the relationship between psychological skills, self-efficacy and performance among soccer players taking part in the 2000 Amputee World Cup and found a moderate relationship between self-efficacy and performance. However, Lowther et al. (2002) cautioned on the consideration of two limitations of the study when interpreting the results: the small ($n=15$) sample size and the lack of a psychometrically valid questionnaire to assess self-efficacy.

Bandura (1986) stated that self-efficacy beliefs are not judgments about one’s skills, but rather are judgments of what an individual can accomplish with his/her skills. These judgments provide the foundation for human motivation, well-being and personal accomplishment as, unless people believe that their actions can produce the desired outcomes, there will be little incentive to act or persevere when faced with difficulties (Bandura, 1997). A person’s behaviour can often be better predicted by his/her self-efficacy judgments rather than the person’s actual abilities (Marcus et al., 1992). It is for this reason that sometimes an individual’s sporting performance does not match his/her sporting abilities. Self-efficacy beliefs have, in some instances, revealed better predictions of future behaviour than past behaviour (Bandura, Adams, Hardy & Howells, 1980; DiClemente, 1981).
Wise and Trunnell (2001) maintain that self-efficacy may predict performance. Gould, Greenleaf, Lauer and Chung (1999) found that self-efficacy was among the most influential factors on performance at the Nagano Olympic Games. Top athletes, irrespective of their chosen sport, display a strong belief in themselves and their abilities (Weinberg & Gould, 2003). Stronger self-efficacy leads to improved performance in a variety of activities including bowling (Boyce & Bingham, 1997), diving (Feltz, Landers & Raeder, 1979), gymnastics (McAuley, 1985) and bench pressing (Fitzsimmons, Landers, Thomas & van der Mars, 1991; Wells, Collins & Hale, 1993). Wise and Trunnell (2001) highlighted how the sequence in which sources of self-efficacy are offered affected its source influence on self-efficacy strength. According to Wise and Trunnell (2001), verbal messages may be a relatively weak source of self-efficacy information when used as the only source of self-efficacy information, but verbal messages do enhance the effects of performance accomplishments. In other studies, two groups of participants were told they were lifting either more weight or less weight than they actually were (Ness & Patton, 1979; Wells et al., 1993). For example, a participant who had successfully lifted a 60kg weight was told that he was lifting 70kg, when he was actually lifting 60kg and another was told that he was lifting 60kg of weight when he was actually lifting 70kg. Participants lifted the most weight when they thought that they were lifting less – when they believed and expected that they were capable of lifting the weight.

Barker and Jones (2006) made use of a multi-modal intervention consisting of hypnosis, technique refinement and self-modelling to improve the self-efficacy levels of cricket leg-spin bowlers. The results showed that this multi-modal intervention was effective in enhancing self-efficacy, maintained in the follow up data collected seven months post-intervention. The follow up data also showed that self-efficacy had become more stable and consistent. Performance
indicators revealed that post-intervention, individuals took more wickets, conceded fewer runs per wicket and were more likely to take a wicket with every ball bowled after the intervention. These results indicated that an increase in self-efficacy could be associated with a valuable performance gain.

Many talented athletes attribute their successes to elevated levels of self-belief and their failures to the lack thereof. Self-efficacy is situation-specific and can rise and fall in response to a variety of factors (Bandura, 1997). Heightened levels of self-efficacy and lower levels of anxiety are associated with successful sport performance (Treasure et al., 1996). This is consistent with Bandura’s (1986) social cognitive theory that posits a person’s level of self-efficacy influences performance both directly and indirectly through other cognitions and emotions. Treasure et al. (1996) found in their sample of male high-school wrestlers that the higher an individual’s pre-competitive level of self-efficacy, the better they performed. Notably, the correlation between self-efficacy and performance improved from $r = 0.40$ when performance was measured as a win-loss to $r = 0.55$ when performance was measured as points scored. As a result of this, Treasure et al. (1996) recommended that there is a need for future research to better conceptualise and assess performance.

2.3. Social Support

The following section presents the relevant literature related to social support theory followed by the relevant literature related to social support and sports involvement.
2.3.1 Social support theory

Social support refers to “an exchange of resources between at least two individuals perceived by the provider or the recipient to be intended to enhance the well-being of the recipient” (Shumaker & Brownell, 1984, p. 13). Social influences can have a significant effect on the nature and quality of individuals’ sport and physical activity experiences (Brustad & Babkes, 2004). Research has primarily focused on parents, peers and coaches as the primary socialising agents guiding cognitions, affect and behaviours as well as overall self-concept throughout life (Gill & Williams, 2008). According to Eccles, Wigfield and Schiefele (1998), significant others can affect a young athlete’s self-perceptions, attitudes, values, beliefs and behaviours. Parental influence is particularly strong in childhood, with an increase in peers’ and coaches’ influence as children approach adolescence (Coakley, 1993; Greendorfer, 1977; Greendorfer, Lewko, & Rosengren, 1996; Horn & Weiss, 1991; Weiss & Frazer, 1995).

Eccles and Harold (1991) proposed that parental influence is demonstrated in two ways: 1) Parents who value a particular activity and hold high expectations are more likely to encourage that type of activity for their child; 2) Parents assist their children in interpreting information about their ability. Parental influence gives children motive to do well as well as to believe that they can do well (Brustad, 1993, 1996; Dempsy, Kimiecik, & Horn, 1996; Fredericks & Eccles, 2002; Kimiecik & Horn, 1998; Kimiecik, Horn, & Shurin, 1996; Xiang, McBride, & Bruene, 2003).

Brustad (1993, 1996) observed that fourth-graders were more involved in physical activity when they perceived themselves to be more competent and those who perceived themselves as more competent had parents who encouraged them to participate. These encouraging parents enjoyed physical activity more than parents who were less encouraging. Research by several
researchers (Dempsey et al., 1996; Fredericks & Eccles, 2002; Kimiecik & Horn, 1998; Kimiecik et al., 1996; Xiang et al., 2003) examining parental beliefs associated with children’s self-perceptions and participation in physical activity has provided several interesting findings:

a) parents who value physical activity are more likely to have children who are effortful and better performers;

b) parents who perceive their children to be competent in physical activity are more likely to have children who perceive themselves to be competent and who are inclined towards physical activity;

c) fathers’ perceptions of their child’s ability is more strongly related to the child’s own perceptions of ability than the mothers’ perceptions and

d) children who believe they are competent in physical activity are more likely to engage in it.

In summary, children are more likely to be physically active, put more effort in their physical activity, perform well when they believe they are capable and more likely to believe this if their parents do (Gill & Williams, 2008).

Positive peer relationships are associated with higher perceived competence, more self-determined motivation, higher enjoyment, stronger feelings of self-esteem and greater sport commitment (McDonough & Crocker, 2005; Ullrick-French & Smith, 2006; Weiss & Smith, 2002). Research using Chellandurai’s (1993) model and Smith and Smoll’s (1997) work on coaching success showed that athletes seem to be satisfied with coaches who emphasise training and instruction and provide positive feedback conditional on good performance.

Social support is a multi-dimensional construct (Udry, 1996) which allows for many possible providers of support as well as various forms. Expressing emotional support (e.g., comforting
someone), tangible support (e.g., assisting someone with a task), informational support (e.g., advice and role clarification) and esteem support (e.g., self-appraisal information) are all examples of supportive social behaviours (Albrecht & Adelman, 1984). Athletes need the positive support of teammates, coaches, parents and friends especially when the athlete feels that he/she is not performing well or realising his/her potential (Weinberg & Gould, 2003).

There is a consensus that social support may exert influence in two ways: firstly, in a main effects model, it may exert generalized positive effects directly on outcomes such as mental health, anxiety and depression (Rees & Hardy, 2004). This may manifest in sport as providing advice about tactics and game plans or by increasing positive affect, leading to an increased possibility of experiencing flow states (Cohen, 1988; Rees, Ingledew & Hardy, 1999). Secondly, it may moderate the effect of stress on outcomes. This is known as the stress-buffering hypothesis. Related to sport, it might buffer the negative impact of stress on performance (Rees & Hardy, 2004).

The cognitive relational theory (Lazarus & Folkman, 1984, 1987) defines stress as an encounter in which the demands are beyond that of the available resources. Cognitive appraisals include two components – primary and secondary appraisals. A situation is, from the primary appraisal perspective, evaluated and categorized as irrelevant, benign–positive or stressful (Jerusalem & Schwarzer, 1992). The primary appraisal is then mirrored by a secondary appraisal, an individual’s perception of the available coping resources for dealing with stress. Social support is included as a coping resource that allows an individual to re-establish the person-environment equilibrium by adapting to the demands (Jerusalem & Schwarzer, 1992).

Taylor et al. (2003) referred to social support as interpersonal exchanges in which one person aids or assists another. Taylor et al.’s (2003) definition implies that social support is a process
that includes both the provider and the recipient of social support. Rosenfeld and Richman’s (1997) model of the social support process presents three broad types of social support: tangible social support, informational social support and emotional social support. The providers (e.g., team, coaches, support personnel, friends and family) display these three broad types of social support (tangible social support, informational social support and emotional social support) through eight various behaviours. These behaviours are reality confirmation, emotional challenge, personal assistance, task appreciation, tangible assistance, emotional support, task challenge and listening support. These behaviours constitute as social support when the recipient perceives these behaviours as enhancing his/her well-being. The outcomes of the recipient perceiving the eight behaviours as social support are an enhanced sense of physical and emotional well-being and/or an improved quality of relationships, ability to work together and adaptation to new demands within a team context. Figure 5 below presents a graphic depiction of Rosenfeld & Richman’s (1997) model of the social support process.
2.3.2. Social support and sport involvement

Interest as to why some children participate in sport and others drop out has highlighted enjoyment, challenge, skill acquisition, travel, athletic scholarships and public recognition (Colwin, 1992) as important incentives. Participation in sport has proven to provide a range of

Only some adolescents who show signs of potential choose to increase their effort and commitment in order to develop their talent. Others choose to maintain involvement at a lower level or choose to drop out all together (Patrick, Ryan, Alfred-Liro, Fredericks, Hruda & Eccles, 1999). Those who choose to commit to their own talent development have been associated with features of the family and home environment (Bloom, 1985; Czikszentmihalyi et al., 1993; Monsaas & Engelhard, 1990) as well as adult figures such as coaches, teachers and mentors (Bloom, 1985; Czikszentmihalyi et al., 1993; Scanlan et al., 1993; Weiss & Petlichkoff, 1989). Beets and Pitetti (2007) hypothesised that social influences (e.g., mom, dad) are related to an individual’s psychological dispositions (e.g., increased self-efficacy) and, as a result, changed behaviour (e.g., physical activity). However, they found that the social support of neither parent influenced physical activity. Previous studies have found that specific ways that parents provide support may be more influential than overall support provided (Beets & Petetti, 2007). Lack of parental encouragement, lack of role models, increased social pressure and fewer sport choices for girls compared with boys contributes to lower self-confidence and self-efficacy in girls (Bunker et al., 1997; Sabo, Miller, Melnick & Heywood, 2004).
Lau, Quadel and Hartman (1990) found that throughout adolescence and into early college years, parents have more influence over the health behaviour of their children than their peers do. There is evidence that social support is linked to elements of motivation (Reinboth, Duda & Ntoumanis, 2004) and commitment (Scanlan et al., 2003). Scanlan et al. (2003) demonstrated the significance of encouragement and support among family and extended family in the lives of world-class rugby players. Morgan and Giacobbi’s (2006) study in which they described the major influences and experiences in the development of highly successful collegiate athletes showed that social support from family, coaches and teammates emerged as indispensable (Côte, 1999; Giacobbi, Lynn, Wetherington, Jenkins, Bodendorf & Langley, 2004; Gould, Dieffenback & Moffett, 2002; Wolfenden & Holt, 2005). From initial sport involvement, siblings, parents or coaches introduced the athletes to sport, supported them and encouraged participation, but during college the coach became a surrogate parent as the athlete was away from home (Morgan & Giacobbi, 2006). Athletes’ relationships with influential people played a role in their ability to face and overcome adversities during their athletic career (Giacobbi et al., 2004; Holt & Dunn, 2004). Morgan and Giacobbi (2006) illustrated that the parents of the athletes interviewed in their study allowed the athlete to participate in many sports (on average between two and four sports) and, without prompting, allowed the athlete to make a decision as to his/her choice of sport specialisation.

Patrick et al. (1999) investigated the factors, specifically peer influence, that played a part in the continued involvement in sports or arts of individuals considered as generally talented. Participants included in the study were in middle childhood or early adulthood who either viewed themselves or were viewed by others as being among the best and most involved of their peers in at least one activity within the sports or arts. They found that the adolescents’
relationships with their peers appeared to serve as an important motivational factor in terms of their continued involvement with their talent activity.

Scholtz and Steyn (1988) identified the need for a South African study related to participant motivation in sport. This was after recognising that researchers in South Africa tend to rely heavily on studies undertaken in other cultures, which could be misleading due to possible cultural and behavioural differences. However, to the present researcher’s knowledge there have been no South African studies done to date regarding social support and sport involvement.

While it is clear that there are many factors associated with talent development, social support has emerged as a commonly cited socio-contextual factor for athletes at many competitive levels (Bianco & Eklund, 2001; Giacobbi et al., 2004; Holt & Dunn, 2004; Rees & Hardy, 2000; Reinboth et al., 2004; Scanlan, Russell, Beals & Scanlan, 2003).

2.4. Self-efficacy and social support

Throughout Jimmy Connors’ (former world number one tennis player) junior playing days, his mother taught him to play a tennis game characterised by taking big shots and going for winners. As a result, he lost some games that he should have won. Yet Connors attributed his success to his mother and grandmother, “They were sensational in their support, they never allowed me to lose confidence. They just kept telling me to play the same way and they kept assuring me that it would eventually come together. And I believed them” (Tarshis, 1977, p. 102).

Self-efficacy and social support are two of the strongest and most consistent correlates of physical activity participation across populations (Peterson, Lowe, Peterson, Nothwehr, Janz & Labas, 2007). The distinct social nature of sport suggests that social support may be an important
source of confidence (Wilson, Sullivan, Myers & Feltz, 2004). According to social cognitive theory, the relationship between social support and physical activity behaviour is mediated by self-efficacy (Bandura, 1986). Self-efficacy has been observed as a mediator of the relationship between social support and a variety of health promoting behaviours and psychological outcomes (Duncan & McAuley, 1993; Major et al., 1990; Saltzman & Holahan, 2002). Individuals are often required to surmise the degree of their competence through various forms of self-efficacy information – performance accomplishments, verbal persuasion, vicarious experiences and physical response (Bandura, 1997) – available from their social environments through direct statement, advice and reassurance from significant others (Duncan & McAuley, 1993).

When looking at various sources of self-efficacy, it is clear that people seek successful models to whom they can aspire. Competent models convey knowledge and teach observers effective skills and strategies for coping with various environmental stressors (Bandura, 1994). The acquisition of these skills and strategies raises a person’s perceived self-efficacy. Another form of improving self-efficacy is through the use of social persuasion (Bandura, 1994). People who are verbally persuaded that they have the potential to succeed in a given task are more likely to increase and sustain efforts than if they were to focus on personal limitations should they arise. However, unrealistic boosts in self-efficacy are quickly disconfirmed by disappointing results in one’s efforts. By constricting activities and undermining motivation, doubt in one’s abilities creates its own behavioural confirmation (Bandura, 1994).

Bandura (1994) maintains that young children need to gain self-knowledge of their capabilities in broadening areas of functioning. Parents who are responsive to a child’s behaviour and create opportunities for efficacious actions by providing the environment to do so have children who are accelerated in their social and cognitive development. It can therefore be said
that the initial self-efficacy experiences of a child are centred in the family and gradually evolve to social comparison with peers (Bandura, 1994). To enhance the compatibility between personal and social support, people generally choose peers who share similar standards of conduct and, as a result, ensure social support for their own system of self-evaluation (Bandura & Walters, 1959; Emmons & Diener, 1986).

Brown, Malouff and Schutte (2004) examined the effectiveness of a self-efficacy intervention for helping adolescents cope with sports competition loss. One of the many possible ways of boosting self-efficacy after loss is for parents, coaches and teammates to provide encouragement and positive evaluative feedback (Feltz & Lirgg, 2001) and prompting adaptive attributions about the loss (McAuley & Gross, 1983; Robinson & Howe, 1987).

Harter and Connell (1984) hypothesized that individuals who were high in perceived competence evaluated their success on internal standards, yet Horn and Hasbrook (1987) found that adolescents use both peer comparison and internal standards as sources of information to judge perceived competence. Patrick et al. (1999) investigated the role of peer relationships in developing or hindering adolescents’ talent development. Talented adolescents’ relationships with peers served as a significant motivational factor with regard to continued commitment to their chosen talent activity. The enjoyment gained from the social aspects of their chosen talent activity enhanced enjoyment and supported continued involvement in these activities. Pedersen and Seidman (2004) identified that the structuring of sports activities so as to maximise mastery opportunities appeared essential to producing positive psychosocial benefits of sports participation amongst young women. Pedersen and Seidman (2004) recommended the use of rewards or positive verbal feedback from a respected coach to achieve this.
As noted earlier, people may evaluate and integrate self-efficacy information from various sources within their social network (Duncan & McAuley, 1993). In Rees and Freeman’s (2009) study, participants had improved levels of self-efficacy and performance when they perceived that someone was available to provide the relevant support when necessary.

2.5. Self-efficacy, social support and cricket performance

To the present researcher’s knowledge, no research exists nationally or internationally related to self-efficacy and cricket performance or social support and cricket performance. Rees and his colleagues (2000, 2004, 2007, 2009) have conducted various studies in recent years relating to self-efficacy and social support. However, Rees and his colleagues’ sample groups have yet to use a sample consisting of cricketers.

2.6. Chapter conclusion

Within this chapter, various theories and influences on self-efficacy and social support were explored. The connection between self-efficacy and motivation, outcome expectancy and sports performance were discussed. As well as this, the connection between social support and sports involvement was reviewed. Finally, research done on both self-efficacy and social support was briefly examined. Based on the research done, it is expected that there would be a positive change in self-efficacy over the duration of an academy programme. However, due to the lack of research done both nationally and internationally no predictions are made for the nature of change in social support over the duration of the academy programme. Due to the exploratory nature of the present study, no predictions were made regarding the nature of the relationship
between self-efficacy and social support. The following chapter presents the research design and methodology of this study.
CHAPTER 3
RESEARCH DESIGN AND METHODOLOGY

3.1. Chapter overview
The present chapter provides an overview of the research design and methodology employed in the study. The primary aims of the study are outlined, followed by a description of the participants and the sampling methods used. A brief explanation of the measures utilised in the research is included in order to provide a better understanding of the data collection and methodology. The process and procedure of the research are further discussed, followed by a motivation for the methods of data analysis utilised in the research. Lastly, the ethical considerations regarding the research are presented.

3.2. Primary aims of the study
The aim of this study was twofold:

- Primarily, it was to explore and describe the nature of change that occurred in self-efficacy and received social support of university-age academy cricketers over the duration of an academy programme.
- Secondarily, it was to explore and describe the relationship between self-efficacy and received social support of academy cricketers. A more specific aim - to explore and describe the correlations between the two constructs, self-efficacy and social support – was generated to achieve the secondary aim of the present research.

The aims were used to guide the methodological aspects of the study. The research design is discussed in the following section.
3.3. Research design and methodology

The present study made use of a quantitative methodology. Neuman (2006) described the quantitative methodology as being concerned about issues of design, measurement and sampling. He further stated that the quantitative methodology makes use of “mechanical” techniques, favouring that the research adheres to standardized methodological procedures, measures data with numbers and then analyses the data using statistics.

The research method employed was that of an inferential pre-experimental design. For Bless and Higson-Smith (1995), the purpose of this type of study is to gain insight into a situation, phenomenon, community or person. This purpose is typical when:

- A researcher is examining a new interest
- The subject of the study is relatively new and unstudied
- A researcher seeks to test the viability of engaging in a more careful study
- A researcher wants to develop the methods to be used in a more careful study (Rubin & Babbie, 2001).

The inferential pre-experimental design is used in a situation where it is difficult to use the classical experimental design. The main disadvantage in using this design is that it makes inferring a causal relationship more difficult (Neuman, 2006).

The design used in the present study was that of a one group post-pretest design. It is a variation of the one group pretest-posttest design. With respect to the one group pretest-posttest design, the independent variable is tested both before ($O_1$) and after ($O_2$) the intervention period (Fouché & De Vos, 2002). The dependent variables $O_1$ and $O_2$ are then compared for the independent variable within the same group. In the present study, self-efficacy and social support are the dependent variables and the academy programme is the independent variable. In a one
group pretest-posttest, it becomes known that a change has taken place. However, other possible explanations for the change cannot be excluded (Leedy & Ormrod, 2005).

The present study varied from the pretest-posttest design in that the measures were administered post-intervention, otherwise known as a one group post-pretest design. This type of design has become popular because it is applied at only one point in time – often on a single instrument that measures a variable “then” (pre-test) and “now” (post-test) (Colosi & Dunifon, 2006). The theory behind this design is that by testing what participants believe about programme content once the programme is completed, their frame of reference for assessing the changes in knowledge, skills or attitudes is consistent. This reduces response shift bias (Davis, 2003; Rockwell & Kohn, 1989). Raidl, Johnson, Gardiner, Denham, Spain and Lanting (2004) asserted that this design reduces incomplete data sets. As well as this, it was convenient for both the present researcher to administer and the participants to complete because of the economizing of time. The unit of analysis was individual university-age male cricketers. Because the participants were not randomly selected, biases could have occurred, possibly compromising the validity of the results. However, the advantages of this design included the built-in strategy for comparing pretests with posttests (De Vos, 2002) as this can be done simultaneously.

### 3.4. Participants and sampling

The total sample included in the present study consisted of sixty-five male university-age (18 to 25 years) cricketers who participated in a South African Inter-provincial Cricket Academy tournament. The participants were chosen through the use of non-probability purposive convenient sampling. Non-probability sampling has two major disadvantages. Firstly, since statistical theories could not be applied to non-random samples, the results are limited in being
able to generalize properties of the sample to the wider population. Secondly, researcher bias could be introduced due to the researcher playing an active role in the selection of the sample (Terreblanche & Durrheim, 1999). Advantages of this method of sampling include lower monetary costs and the limited time consuming process (Struwig & Stead, 2001).

Neuman (2006) asserted that purposive sampling could be used to select members of a “difficult-to-reach, specialized population”. For the present study, the researcher approached members of provincial cricket academies within South Africa. Convenience sampling was used. South African academy cricketers who fell within the age group of 18-25 years were included in the research. This ensured that the participants were male, university-age and of similar cricketing ability. Academy cricketers were chosen because of their pedigree of cricketing ability as well as their accessibility. Sixty-five of the 71 South African Provincial Academy cricketers competing in the South African Interprovincial Academy Cricket tournament participated in the present study. The six academy cricketers who did not participate in the present study were unavailable at the time that the assessment sessions were conducted. Additional information such as number of years in the cricket academy, specialised cricket role, highest cricketing achievement and race was also collected.

3.5. Assessment measures

The measures used for data collection for the present study were an expanded version of the Cox, Martens and Russell’s (2003) revised Competitive State Anxiety Inventory-2 (CSAI-2-Martens, Burton, Vealey, Bump & Smith, 1990) and a social support measure constructed specifically for the study. The latter measure was based on the social support measure constructed by Rees and Hardy in their 2000 study regarding the social support experiences of
high-level sports performers. As a result of a lack of valid measures in sport psychology, researchers have tended to write their own items (T. Rees, personal communication, 30 June 2008). Both measures made use of a 5 point Likert scale.

3.5.1. Competitive State Anxiety Inventory -2R

The CSAI-2 (Martens et al., 1990) has been used extensively in research and is possibly one of the most well-known anxiety instruments used in sport psychology research. For the purposes of the present study, self-efficacy was assessed by expanding on the self-confidence scale of the revised Competitive State Anxiety Inventory-2 (CSAI-2R - Cox et al., 2003). This scale has an internal reliability of 0.81. Cox et al. (2003) concluded that the CSAI-2R has stronger psychometric properties in terms of its factor structure than the original CSAI-2 (Martens et al., 1990).

The items used for the present study were those items of the self-confidence scale of the CSAI-2R combined with items that were adapted from the Sport Self-Efficacy Scale (Ryckman, Robbins, Thornton & Cantrell, 1982). These adaptations were made according to suggestions made by Bandura (1986) and Hu, McAuley & Elavsky (2005). The adaptations (See Appendix A) included creating items that were specific to cricket as well as changing the subject of each item e.g., “Sometimes I don’t hold up well under stress” was changed to “I am confident of handling pressure situations” so that it measures self-efficacy rather than self-esteem (Hu et al., 2005).

The adapted self-efficacy measure constructed specifically for the present study consisted of ten items. The average inter-item correlation was moderate (0.33 and 0.32) for the post- (“present”) and pre- (“before”) items respectively (See Appendix A). Cronbach’s alpha internal
reliability coefficients were measured at 0.82 (post-) and 0.80 (pre-). Alpha coefficients range from 0 to 1, where the higher the score, the more reliable the generated scale is (Reynaldo & Santos, 1999). Nunnaly (1978) indicated 0.7 to be an acceptable reliability coefficient, but that 0.6 is acceptable for an exploratory study.

3.5.2. Social support measure

Rees and Freeman (2007) created a measure for their study involving perceived and received social support and self-confidence in university-age athletes. Their study made use of two of the four social support dimensions – emotional support and esteem support. Both perceived and received supports were assessed by rephrasing and changing the tense of each question. Correlations between the two subscales of perceived support were strong (r =0.76, p <.05). Cronbach’s alpha internal reliability coefficients were 0.78 and 0.81 for the emotional and esteem subscales respectively, with the total for both scales being 0.88. In the received support scale, Cronbach’s alpha internal reliability coefficients were 0.72 and 0.84 respectively, with the total for both scales being 0.87.

The measure created for the present study made use of Rees and Hardy’s (2000) items (See Appendix B). These items were the same ones used for the creation of Rees and Freeman’s (2007) measure. The items used to represent the four dimensions of support (emotional, esteem, informational and tangible) were identified by Rees and Hardy (2000) in a study of social support experiences of high-level sportspeople. The four dimensions of social support that were explored in the present study were emotional social support (items 1, 5, 9, 13), esteem social support (items 2, 6, 10, 14), informational social support (items 3, 7, 11, 15) and tangible social support (items 4, 8, 12, 16). With regards to the tangible social support items, items related to
transport and accommodation were included. This was done so as to make the measure more relevant to a South African context, as recommended by T. Rees (personal communication, 30 June 2008).

Statistical reliability for the summated scores of each of the four domains was obtained by using Cronbach’s Alpha. The reliability coefficient and the inter-item correlation values of each item are depicted in Table 1 below.

Table 1. Internal reliability and inter-item correlation of social support measure

<table>
<thead>
<tr>
<th>FACTOR</th>
<th>Number of items</th>
<th>Alpha (post-)</th>
<th>Alpha (pre-)</th>
<th>Average inter-item correlation (post-)</th>
<th>Average inter-item correlation (pre-)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional</td>
<td>4</td>
<td>0.74</td>
<td>0.70</td>
<td>0.42</td>
<td>0.38</td>
</tr>
<tr>
<td>Esteem</td>
<td>4</td>
<td>0.69</td>
<td>0.77</td>
<td>0.36</td>
<td>0.45</td>
</tr>
<tr>
<td>Informational</td>
<td>4</td>
<td>0.66</td>
<td>0.75</td>
<td>0.33</td>
<td>0.43</td>
</tr>
<tr>
<td>Tangible</td>
<td>4</td>
<td>0.61</td>
<td>0.66</td>
<td>0.28</td>
<td>0.33</td>
</tr>
</tbody>
</table>

3.6. Procedure

The following procedure was adhered to in order to successfully achieve the aims of the present study: The research proposal was submitted to the Faculty Research, Technology and Innovation Committee (FRTI) and the Ethics Committee (Human) of the Nelson Mandela Metropolitan University. Once reviewed by the respective committees, necessary changes were made to the proposal in order to proceed with the research study in an effective and ethical manner. Potential participants who met the relevant inclusion criteria were identified and approached via the manager of each of the six provincial academies. Testing sessions were then scheduled at the start of the
South African Interprovincial Academy Cricket tournament with the identified participants who met the inclusion criteria. The measures were group administered. The greatest advantage of the group-administered method is that time and costs are saved in that the group of participants may be handled simultaneously and, as a result, be exposed to the same stimulus (De Vos, 2002). A possible disadvantage to the group-administered method is obtaining a suitable venue and time slot which suits all participants. This was overcome by arranging a time prior to the start of the South African Interprovincial Academy Cricket tournament in which participants were competing. Some mutual influence may have occurred among the participants, although the questionnaires were completed independently. Some participants may have experienced difficulties in understanding certain questions and instructions, but may have been too embarrassed to ask for clarification in a group (De Vos, 2002). This may have resulted in the individual answering the question arbitrarily, which may have affected the validity of the results (De Vos, 2002). However, in order to minimise this, the present researcher ensured that she was present during all of the testing sessions to assist where necessary. Guidance was only provided with regard to grammatical or language difficulties. No guidance or cues were purposefully or covertly provided to the participants. Each provincial academy (8-12 participants) completed the measures at a convenient time for them. Research results, as applying to the sample group as a whole, were given to each respective cricket academy in the form of a report or feedback session. Each academy cricketer was also encouraged to contact the present researcher should he require individual feedback.

3.7. **Data analysis**

The data were analysed according to the two primary aims of the study. The researcher utilized the services of an independent statistician for the data analysis of the results in the
present study. Both aims were realised through the use of descriptive statistics. Both numerical and graphical techniques were used to describe the change in self-efficacy and social support over the duration of a Cricket Academy Programme (6 months). The associations between the change in self-efficacy and the change in perceived social support received were also analysed using numerical and graphical techniques. Frequency distribution and contingency tables were primarily used to achieve the first, univariate aim. Graphical techniques, namely line graphs and cross-tabulation (contingency tables), were used to achieve the second, bivariate aim. This allowed the form, direction and precision of the relationship to be described. Specific statistical techniques employed to achieve this included a one sample, post- and pretest t-test, the Pearson-product moment and an analysis of variance (ANOVA). Cronbach’s alpha was used to assess the internal reliability of the questionnaires used. As stated previously, Cronbach’s alpha internal reliability coefficients for the adapted self-efficacy measure were measured at 0.82 (post-) and 0.80 (pre-). Cronbach’s alpha internal reliability coefficients for the four factors of the adapted social support measure ranged from 0.61 to 0.74 (post-) and 0.66 to 0.77 (pre-). Alpha coefficients range from 0 to 1, where the higher the score, the more reliable the generated scale is (Reynaldo & Santos, 1999). Nunnaly (1978) indicated 0.7 to be an acceptable reliability coefficient, but that 0.6 is acceptable for an exploratory study. For this reason, the alpha coefficients for both of the adapted measures used for the present study were acceptable.

3.8. Reliability and validity

According to Foxcroft and Roodt (2001), reliability refers to the consistency with which an instrument is able to measure whatever it intends to measure. Validity concerns what the construct measures and how well it does so (Fxcroft & Roodt, 2001).
Reliability of the measures used in the present study was assessed after the data were collected, using Cronbach’s alpha internal reliability coefficient. Adaptations to each instrument were made to improve the validity as per recommendations made by previous researchers (Hu et al., 2005; Rees & Freeman, 2007). The adaptations were made to improve specifically the face and content validity of each construct measured. Face validity is concerned with appearing to relevantly measure the construct at face value. It was for this reason that the subject of the items adapted from The Physical Self-Efficacy Scale (Ryckman et al., 1982) was changed (e.g., “Sometimes I don’t hold up well under stress” was changed to “I am confident of handling pressure situations”). Content validity is concerned with the representativeness of the content items of an instrument (Delport, 2002). Content validity was established on the basis of judgments of the present researcher and other experts on whether the measure covered the variety of facets of which the construct is composed. Monette, Sullivan and DeJong (2002) refer to this as “jury opinion”. The “jury” in the present study consisted of the present researcher, an experienced academic and practitioner in the field of sport psychology and a professor in psychology who both work in the academic setting. Although it is still subjective, more people are involved in judging bias or misinterpretation. As a result of this, jury opinion is superior to using individual tests of content validity (Delport, 2002).

3.9. Ethical considerations

Ethical permission was required to conduct the present study. The nature of the study did not expose the participants to physical and/or emotional harm. Related to this, informed consent (Appendix C) was obtained prior to the data collection. Confidentiality related to this study is also discussed.
3.9.1. Informed consent

Salkind (1997) stated that informed consent is probably the most important consideration in behavioural research. Informed consent refers to the disclosure of relevant information concerning the study to the research participants before data collection takes place (Cozby, 1993). Huysamen (1994) indicated that the participants should be informed of the purpose of the research. It should also be reiterated that participation in the research is entirely voluntary. This implies that there is no pressure or coercion on the researcher’s behalf at all times (Cozby, 1993; Huysamen, 1994). Salkind (1997) indicated that all research projects that use human beings as participants should have informed consent forms, read and signed by each participant. Information related to the participant in the consent form used in the present study (Appendix C) consisted of an explanation of the voluntary nature of the study, information related to content of the study, risks and benefits involved in the study, contact details of the researcher and the researcher’s supervisor and issues surrounding confidentiality. Each participant signed the form voluntarily before data collection began.

3.9.2. Confidentiality

Dane (1990) and Babbie (2001) distinguished between anonymity and confidentiality. Confidentiality implies that only the researcher and a few members involved with the research and who have committed themselves to the confidential nature of the research are aware of the identity of participants. Anonymity means that no one, including the researcher, should be able to identify any participant afterwards (Babbie, 1990; Baker, 1988). Biographical information included on the questionnaires was given confidentially so as to ensure the privacy of the participants.
3.10. Chapter conclusion

Chapter 3 provided a description of the research design and the methodology employed in the present study. The primary aims of the present research, as well as the research methods used in the study, were outlined. A description of the participants and sampling procedures were provided. Furthermore, a brief overview of the measures used to gather data was included. Finally, the ethical considerations considered for this study were discussed. The next chapter presents the results of the present study.
CHAPTER 4

RESULTS AND DISCUSSION

4.1. Chapter overview

Chapter 4 presents the results of the study with a discussion related to the aims and the literature review. The primary aim of the study was to explore and describe the nature of change that occurred in self-efficacy and received social support of university-age academy cricketers over the duration of an academy programme. The secondary aim was to explore and describe the relationship that existed between the two constructs. A demographic description of the present sample is presented and discussed before the results of the study are presented.

4.2. Demographic description of the present study sample

In the present study, six provincial cricket academies took part. These six cricket academies were represented by a total of 71 male cricketers, of which 65 male cricketers voluntarily completed the questionnaires. The remaining six cricketers were unavailable at the time the questionnaires were completed. All of the questionnaires completed by the sixty-five participants were included in the data analyses. Two of the sixty-five questionnaires completed by the participants were excluded in certain data analyses as they were incomplete in providing biographical data.
4.2.1. Age

The ages of the participants in the sample ranged between 18-25 years. The majority of the participants in the sample fell within the 18-19 year age groups with numbers within each age group decreasing with increasing age. Figure 6 presents the age distribution of the total sample.

![Age distribution of the total sample](image)

4.2.2. Experience

Figure 7 below presents the number of years each participant spent at the provincial cricket academy. Forty-three participants (69%) were in their first year, 18 (29%) were in their second year and 1 participant (2%) was in his third year of the academy.
Figure 7. Percentage of participants by years of experience at the academy

4.2.3. Ethnicity

Figure 8 below presents the ethnicity of the sample. In the present study, 23 participants (36%) were black, 21 (32%) were white, 17 (26%) were coloured and 4 (6%) were Indian.

Figure 8. Percentage of participants by ethnicity
According to the mid-2007 estimates from Statistics South Africa, South Africa’s population stood at an estimated 47.9 million (www.southafrica.info). Of this population, black people were in the majority at just over 38-million (79.6%). The rest of the population consisted of an estimated 4.3-million (9.1%) white people, 4.2-million (8.9%) coloured people and just under 1.2-million (2.5%) Indian/Asian people (www.southafrica.info).

4.2.4. Specialised role within the team

Figure 9 below presents the specialised role within the team indicated by each participant. Eighteen (30%) indicated that they were batsmen, 18 (30%) indicated that they were bowlers, 21 (34%) indicated that they were all-rounders and 4 (6%) indicated that they were wicket-keepers.

![Figure 9. Percentage of participants by specialised role within team](image)

Figure 9 above shows that the sample is balanced in terms of the specialized role played by each participant within his team. This distribution closely reflects that of the 181 cricket players who participated in the 2010 Indian Premier League (IPL 2010) which consists of 64 (35%)
bowlers, 54 (30%) batsmen, 51 (28%) all-rounders and 12 (7%) wicket-keepers (www.iplt20.com).

4.3. Nature of change in relationship

The following sections show the nature of change that occurred over the cricket academies’ six months duration. The nature of change is examined in terms of comparing mean scores on items of the measures used, comparing the mean scores reported by first year and second year academy participants, and comparing the mean scores reflected in terms of highest achievements of academy members. T-tests and an ANOVA test were used to determine and describe the nature of change in the various relationships. The section on the nature of change in the relationships is concluded with a discussion on the nature of change in the various relationships.

4.3.1. Change in self-efficacy over duration of academy

A within-subjects t-test was done to determine the differences between the mean performance scores on the pre- (“before”) and post- (“present”) items on the self-efficacy measure. The pre- (“before”) items referred to self-efficacy at the start of the academy. The post- (“present”) items referred to self-efficacy after completing the academy. The self-efficacy measure’s Likert scale ranged from 1 to 5. Considering this, the mean scores reported both before the start of the academy and at the time each participant completed the measure at the completion of the academy were relatively high. The mean scores reported ranged from 3.74 to 4.31 (pre-) and 4.06 to 4.59 (post-). All of the items, except for item 9, reflected significant (p < .05) changes over the duration of the academy. Item 9 was “I am confident that I can bounce back from
disappointment”. Table 2 below shows the pre- and post- mean scores of self-efficacy reported by the participants.

Table 2. Self efficacy - descriptive statistics and dependent samples t-tests

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>SD</th>
<th>t-value</th>
<th>p-value</th>
</tr>
</thead>
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<td>SE01_{pab}</td>
<td>4.42</td>
<td>0.85</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SE01_{bab}</td>
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<td>0.94</td>
<td>4.67</td>
<td>0.000*</td>
</tr>
<tr>
<td>SE02_{pab}</td>
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<td>0.64</td>
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<td></td>
</tr>
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<td>0.72</td>
<td>3.13</td>
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<tr>
<td>SE04_{pab}</td>
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<td></td>
<td></td>
</tr>
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<td>SE04_{bab}</td>
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<td>0.85</td>
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</tr>
<tr>
<td>SE05_{pab}</td>
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<td></td>
<td></td>
</tr>
<tr>
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<td>0.97</td>
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<td>0.040*</td>
</tr>
<tr>
<td>SE06_{pab}</td>
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<td></td>
<td></td>
</tr>
<tr>
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<td>0.74</td>
<td>3.20</td>
<td>0.002*</td>
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<td>SE07_{pab}</td>
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<td>0.85</td>
<td></td>
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</tr>
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<td>3.45</td>
<td>0.001*</td>
</tr>
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<td>SE08_{pab}</td>
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<td>1.03</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SE08_{bab}</td>
<td>3.74</td>
<td>1.29</td>
<td>3.00</td>
<td>0.004*</td>
</tr>
</tbody>
</table>
4.3.2. Change in social support factors over duration of academy

A within-subjects t-test was used to determine the difference in the pre- and post- mean scores of social support. The social support measure’s Likert scale ranged from 1 to 5. The mean scores
ranged from 3.70 to 4.09 (pre-) and 3.96 to 4.37 (post-), which are relatively high mean scores. Significant (p < .05) changes were reflected in emotional social support (item 13), esteem social support (items 6, 10, 14), informational social support (items 3, 7, 11, 15) and tangible social support (item 12). Table 3 below shows the pre- and post- mean scores of the social support factors reported by the participants.

Table 3. Mean scores of social support items (pre- and post-)

<table>
<thead>
<tr>
<th>Items</th>
<th>Mean</th>
<th>SD</th>
<th>t-value</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS01pab</td>
<td>4.28</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>SS01bab</td>
<td>4.18</td>
<td>1.01</td>
<td>0.88</td>
<td>0.381</td>
</tr>
<tr>
<td>SS02pab</td>
<td>4.08</td>
<td>0.92</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SS02bab</td>
<td>3.97</td>
<td>0.98</td>
<td>1.02</td>
<td>0.311</td>
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<tr>
<td>SS03pab</td>
<td>4.00</td>
<td>1.02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SS03bab</td>
<td>3.66</td>
<td>1.06</td>
<td>2.28</td>
<td>0.026*</td>
</tr>
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<td>SS04pab</td>
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<td></td>
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</tr>
<tr>
<td>SS04bab</td>
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<td>1.49</td>
<td>0.59</td>
<td>0.559</td>
</tr>
<tr>
<td>SS05pab</td>
<td>3.85</td>
<td>0.94</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SS05bab</td>
<td>3.89</td>
<td>1.13</td>
<td>-0.37</td>
<td>0.715</td>
</tr>
<tr>
<td>SS06pab</td>
<td>4.55</td>
<td>0.83</td>
<td></td>
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</tr>
<tr>
<td>SS06bab</td>
<td>4.32</td>
<td>0.92</td>
<td>2.21</td>
<td>0.031*</td>
</tr>
<tr>
<td>SS07pab</td>
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<td>0.91</td>
<td></td>
<td></td>
</tr>
<tr>
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<td>0.96</td>
<td>2.25</td>
<td>0.028*</td>
</tr>
<tr>
<td>SS08pa</td>
<td>4.08</td>
<td>1.18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>------</td>
<td>------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SS08pb</td>
<td>3.94</td>
<td>1.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SS09pa</td>
<td>4.23</td>
<td>0.86</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SS09pb</td>
<td>1.05</td>
<td>0.96</td>
<td>1.69</td>
<td>0.096</td>
</tr>
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<tr>
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<td>4.17</td>
<td>0.98</td>
<td>2.65</td>
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</tr>
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<td>SS11pa</td>
<td>4.05</td>
<td>0.87</td>
<td></td>
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<td>1.10</td>
<td>3.08</td>
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<td>SS12pa</td>
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</tr>
<tr>
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<td>1.16</td>
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<tr>
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<td>1.00</td>
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<td>0.97</td>
<td>2.86</td>
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<td>SS16pa</td>
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<td></td>
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<td>4.09</td>
<td>1.28</td>
<td>1.5</td>
<td>0.140</td>
</tr>
</tbody>
</table>

*Note. SS = Social support; p = post- (“present”); b = pre- (“before”). *n = 65 for group b df = 64 for group *p < .05

When the relevant items were combined so that each social support factor could be compared (post-pre-), a significant (p < .05) change over the duration of the academy occurred in the esteem social support, informational social support and tangible social support factors. The only factor in which a significant change did not occur was in the emotional social support factor.
Table 4 below presents the mean performance on the social support measure of the four social support factors.

Table 4. Mean performance on social support measure (four factors)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>t-value</th>
<th>p-value</th>
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<td>0.70</td>
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</tr>
<tr>
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<td>0.75</td>
<td>1.21</td>
<td>0.232</td>
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<td>Es p&lt;sub&gt;ab&lt;/sub&gt;</td>
<td>4.37</td>
<td>0.59</td>
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<td></td>
</tr>
<tr>
<td>Es b&lt;sub&gt;ab&lt;/sub&gt;</td>
<td>4.09</td>
<td>0.74</td>
<td>3.45</td>
<td>0.001*</td>
</tr>
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<td>In p&lt;sub&gt;ab&lt;/sub&gt;</td>
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</tr>
<tr>
<td>In b&lt;sub&gt;ab&lt;/sub&gt;</td>
<td>3.70</td>
<td>0.77</td>
<td>3.48</td>
<td>0.001*</td>
</tr>
<tr>
<td>Ta p&lt;sub&gt;ab&lt;/sub&gt;</td>
<td>3.96</td>
<td>0.81</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ta b&lt;sub&gt;ab&lt;/sub&gt;</td>
<td>3.79</td>
<td>0.90</td>
<td>2.30</td>
<td>0.025*</td>
</tr>
</tbody>
</table>

Note. Em = Emotional; Es = Esteem; In = Informational; Ta = Tangible; p = post ("present"); b = pre- ("before"). * n = 65 for group \(^b\) df = 64 for group \(^p\) p < 0.5

Figure 11 below graphically depicts the information provided in Table 4 above. It depicts the significant and non-significant changes in each social support factor. The non-significant items are indicated in grey.
4.3.2.1. Contribution of years of experience in academy to change in social support factors

A between-subjects t-test was used to determine whether there were any differences between those participants who were in their first year of attending the academy and those participants who were in their second year of attending the academy. Table 5 below compares the mean scores of first year and second year academy participants. The mean scores refer to the difference between the mean scores of each social support factor (post- and pre-). There were no significant differences in the mean scores of first year and second year academy participants. As a result, data from first year and second year participants were combined in subsequent data analyses.
Table 5. Mean scores of 1st year and 2nd year academy participants

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean 1 year</th>
<th>Mean 2 year</th>
<th>t-value</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Em SS diff</td>
<td>0.15</td>
<td>0.13</td>
<td>0.139</td>
<td>0.890</td>
</tr>
<tr>
<td>Es SS diff</td>
<td>0.28</td>
<td>0.36</td>
<td>-0.425</td>
<td>0.672</td>
</tr>
<tr>
<td>In SS diff</td>
<td>0.33</td>
<td>0.39</td>
<td>-0.245</td>
<td>0.808</td>
</tr>
<tr>
<td>Ta SS diff</td>
<td>0.16</td>
<td>0.13</td>
<td>0.13</td>
<td>0.897</td>
</tr>
<tr>
<td>SE SS diff</td>
<td>0.33</td>
<td>0.37</td>
<td>-0.24</td>
<td>0.811</td>
</tr>
</tbody>
</table>

*Note. Em = Emotional; Es = Esteem; In = Informational; Ta = Tangible; SS = Social support; diff = difference over duration of academy.*

Figure 12 below graphically summarizes the tabular information given above in Table 5. The graph shows the non-significance in the change of the mean scores between the first year and second year academy participants. All of the scores were not significant.

Figure 12. Mean scores of 1st year and 2nd year academy participants
4.3.2.2. Contribution of highest achievement to change in social support factors

An ANOVA test was performed to determine whether there were any significant differences in the mean scores on each construct related to each participant’s highest achievement reported in the biographical section in Appendix A. There were no significant differences in mean scores on each construct related to the participants’ highest achievement reported. Data from all three achievement groups were therefore combined in subsequent analyses. Table 6 below shows the mean scores for all three achievement groups on each construct.

Table 6. Mean scores of the three achievement groups

<table>
<thead>
<tr>
<th>Variable</th>
<th>Groups</th>
<th>Mean</th>
<th>F-ratio</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Em SS p</td>
<td>Academy</td>
<td>4.1</td>
<td>0.019</td>
<td>0.982</td>
</tr>
<tr>
<td></td>
<td>Amateur</td>
<td>4.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>4.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Em SS b</td>
<td>Academy</td>
<td>4.0</td>
<td>0.046</td>
<td>0.956</td>
</tr>
<tr>
<td></td>
<td>Amateur</td>
<td>4.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>4.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Em SS diff</td>
<td>Academy</td>
<td>0.1</td>
<td>0.013</td>
<td>0.880</td>
</tr>
<tr>
<td></td>
<td>Amateur</td>
<td>0.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>0.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Es SS p</td>
<td>Academy</td>
<td>4.5</td>
<td>1.313</td>
<td>0.277</td>
</tr>
<tr>
<td></td>
<td>Amateur</td>
<td>4.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>4.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Academy</td>
<td>Amateur</td>
<td>Other</td>
</tr>
<tr>
<td>---------</td>
<td>----------</td>
<td>---------</td>
<td>---------</td>
<td>-------</td>
</tr>
<tr>
<td>Es SS b</td>
<td>Academy</td>
<td>4.2</td>
<td>4.0</td>
<td>4.1</td>
</tr>
<tr>
<td></td>
<td>Amateur</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Es SS diff</td>
<td>Academy</td>
<td>0.3</td>
<td>0.3</td>
<td>0.1</td>
</tr>
<tr>
<td></td>
<td>Amateur</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In SS p</td>
<td>Academy</td>
<td>4.2</td>
<td>3.9</td>
<td>4.1</td>
</tr>
<tr>
<td></td>
<td>Amateur</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In SS b</td>
<td>Academy</td>
<td>3.7</td>
<td>3.7</td>
<td>3.8</td>
</tr>
<tr>
<td></td>
<td>Amateur</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In SS diff</td>
<td>Academy</td>
<td>0.5</td>
<td>0.2</td>
<td>0.4</td>
</tr>
<tr>
<td></td>
<td>Amateur</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ta SS p</td>
<td>Academy</td>
<td>4.0</td>
<td>3.9</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>Amateur</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ta SS b</td>
<td>Academy</td>
<td>3.7</td>
<td>3.9</td>
<td>3.9</td>
</tr>
<tr>
<td></td>
<td>Amateur</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The primary aim of the present study was to explore and describe the nature of change that occurred in self-efficacy and received social support of university-age academy cricketers over the duration of an academy programme. Section 4.4. discusses the results related to this aim.

During the course of the six month long cricket academies, both social support and self-efficacy improved significantly. On nine of the ten items included in the self-efficacy measure, there was a significant positive change. The only item in which no significant change occurred was on Item 9 ("I am confident that I can bounce back from disappointment"). However, the p-value was 0.059. According to Morgan and Giacobbi (2006), the importance of social support for
overcoming adversity is an important theme that needs to be addressed by sport psychology consultants and coaches.

The benefits of attending a cricket academy include developing natural talent, skill, mental attitude, general cricket knowledge as well as cricket etiquette (www.stgeorgespark.co.za). Bandura (1986, 1997) stated that the most effective manner in which to strengthen self-efficacy is to provide opportunities for people to succeed at a task. A cricket academy grants an individual cricketer numerous opportunities for success and improvement throughout the academy season, thereby providing information about past performances, which is a primary source of self-efficacy information (Bandura, 1986, 1997).

Of the four social support factors, only the change in emotional social support (e.g., having someone there for them) was not significant. There was a significant change in the esteem social support (e.g., having someone who could encourage them and boost their confidence) informational social support (e.g., having someone to give constructive criticism and technical advice) and tangible social support (e.g., having someone to set up sessions in practice) over the six month academies. The nature of the services provided at a provincial cricket academy, as mentioned above, lend themselves to an improvement in esteem social support, informational social support and tangible social support. Esteem social support could come in the form of encouragement from teammates. Informational social support could come from the coach as well as other support staff involved in the academies. Tangible social support could come in the form of various administrative staff involved in the provincial cricket academies as well as family members who help with practical tasks. The non-significant change in emotional social support may be the result of an academy cricketer relying on a previous provider of social support, such as a parent or former coach, throughout the duration of the provincial cricket academy. As a
result of this presumed support, the change in emotional social support may not change as significantly as the other types of social support.

Interestingly, the mean scores of the pre-items of both the self-efficacy and social support measures were relatively high before the start of the provincial cricket academies, which supports the notion that individuals who are high in self-efficacy and/or social support were likely to progress to a higher level in sport (Bandura, Barbaranelli, Caprara, Pastorelli, 1996; Bandura, Pastorelli, Barbaranelli & Caprara, 1999). Individuals high in self-efficacy believe in their abilities and have positive thoughts surrounding what they do. They have a greater prosocial orientation and may therefore be predisposed to view any social support they receive positively (Bandura et al., 1996; Bandura et al., 1999).

4.5. Correlations between variables

The Pearson product-moment correlation coefficient was calculated in order to determine the strength and direction of the correlation between the dependent and independent variables (Coolican, 1999; Ezekiel & Fox, 1963; Harris, 1998). The Pearson product-moment correlation reveals whether a relationship exists between variables, as well as the direction (positive or negative) of the relationship.

The significance of the correlations was indicated by the p values. The level of significance was set at a 5% level ($p \leq .05$) as convention dictates (Coolican, 1999). Guilford’s (1946) guidelines to interpret the magnitude of the relationships were used as follows:

- Less than .20  Slight – almost negligible relationship
- .20 - .40  Low correlation – definite, but small relationship
- .40 - .70  Moderate correlation – substantial relationship
• .70 - .90  High correlation – marked relationship
• .90 – 1.00  Very high correlation – very dependable relationship

The results of the correlation analyses are presented in the sections 4.5.1. to 4.5.4. A discussion relating to the correlations is presented in section 4.6.

4.5.1. Correlations between self-efficacy and the four social support factors

Table 7 below shows the correlations between the change in the pre- and post- mean scores of self-efficacy and the change in the pre- and post- mean scores of the various social support factors.

<table>
<thead>
<tr>
<th>Variable</th>
<th>SE diff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Em SS diff</td>
<td>0.05</td>
</tr>
<tr>
<td>Es SS diff</td>
<td>0.11</td>
</tr>
<tr>
<td>In SS diff</td>
<td>0.38*</td>
</tr>
<tr>
<td>Ta SS diff</td>
<td>-0.08</td>
</tr>
</tbody>
</table>

Note. Em = Emotional; Es = Esteem; In = Informational; Ta = Tangible; SE = Self-efficacy; SS = Social support; diff = difference over duration of academy.* p< .05

A Pearson product-moment test was used to determine the strength and direction between the change in pre- and post-self-efficacy (SE diff) and the change in each of the four social support factors. The only significant correlation was that of the change in self-efficacy and the change in
informational social support (In SS diff). The correlation was of moderate strength and positive in direction.

All the correlations between the difference in self-efficacy and the difference in the other social support factors (pre- and post-) were not significant and showed a slight correlation. The difference in pre- and post-tangible social support and the difference in pre- and post-self-efficacy showed a slight correlation that was negative in direction. These non-significant correlations were, as a result, not included in the discussion of the correlations.

4.5.2. Correlations between each of the four social support factors (post-)

Table 8 below depicts the correlations between each of the four social support factors (post-).

Table 8. Correlations between each of the four social support factors (post-)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2.</td>
<td>0.70*</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>0.66*</td>
<td>0.46*</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>0.47*</td>
<td>0.32*</td>
<td>0.42*</td>
<td>-</td>
</tr>
</tbody>
</table>

* Note. Em = Emotional; Es = Esteem; In = Informational; Ta = Tangible; SS = Social support; p = post- * p< .05

All of the correlations were significant. The direction of each correlation was positive and the strength of the correlation ranged from low (0.32) to high (0.70). These correlations may be the result of each of these factors measuring the same construct, social support (post-).

4.5.3. Correlations between each of the four social support factors (pre-)

Table 9 below depicts the correlation between each of the four social support factors (pre-).
Table 9. Correlations between each of the four social support factors (pre-)

<table>
<thead>
<tr>
<th>Variable</th>
<th>1. Em SS b</th>
<th>2. Es SS b</th>
<th>3. In SS b</th>
<th>4. Ta SS b</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.</td>
<td>0.71*</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>0.64*</td>
<td>0.73*</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>0.51*</td>
<td>0.41*</td>
<td>0.39*</td>
<td>-</td>
</tr>
</tbody>
</table>

*Note. Em = Emotional; Es = Esteem; In = Informational; Ta = Tangible; SS = Social support; b = before * p < .05

All of the correlations were significant. The direction of each correlation was positive and the strength of the correlation ranged from moderate (0.39) to high (0.73). These correlations may be the result of each of these factors measuring the same construct, social support (pre-).

4.5.4. Correlations between each of the four social support factors (pre- and post-)

Table 10 below depicts the correlation between each of the four social support factors (pre- and post-).

Table 10. Correlations between each of the four social support factors (pre- and post-)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Em p</th>
<th>Es p</th>
<th>In p</th>
<th>Ta p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Em p</td>
<td>0.63*</td>
<td>0.37*</td>
<td>0.32*</td>
<td>0.43*</td>
</tr>
<tr>
<td>Es p</td>
<td>0.42*</td>
<td>0.56*</td>
<td>0.28*</td>
<td>0.34*</td>
</tr>
<tr>
<td>In p</td>
<td>0.42*</td>
<td>0.29*</td>
<td>0.26*</td>
<td>0.26*</td>
</tr>
<tr>
<td>Ta p</td>
<td>0.37*</td>
<td>0.20*</td>
<td>0.20*</td>
<td>0.76*</td>
</tr>
</tbody>
</table>

*Note. Em = Emotional; Es = Esteem; In = Informational; Ta = Tangible; p = post (“present”) b= pre (“before”) * p < .05
The only non-significant correlations were between pre-esteem social support and post-tangible social support as well as pre-informational social support and post-tangible social support. The remaining correlations were significant (p < .05). The direction of each of these correlations was positive and the strength of each correlation ranged from low (0.26) to high (0.76).

4.6. Discussion related to correlations between variables

The second aim of the present study was to explore and describe the relationship that existed between self-efficacy and social support. This section presents a discussion of the results related to this aim.

The social nature of sport suggests that social support may be an important source of confidence (Babkes & Partridge, 2004). However, the correlations between the change in self-efficacy and the change in each of the four factors of social support revealed the only significant correlation was that between the change in self-efficacy and the change in informational social support. Similarly, Taal, Rasker, Seydel and Wiegman (1993) found in their study of self-efficacy and social support related to adherence to health recommendations in patients with rheumatoid arthritis that emotional social support was not related to health status, whereas informational social support was. Wilson et al. (2004) also found that social support was not a significant predictor of self-confidence-trait even though it ranked as the third most important source of confidence information among masters athletes.

Being able to control thoughts and emotions has been shown to positively affect self-efficacy (Treasure et al., 1996). Therefore informational support provided about how to control thoughts and emotions may be positively correlated to an improvement in self-efficacy. Additionally,
parents assist children in interpreting information about their ability (Eccles & Harold, 2001). This could be viewed as a reminder of previous accomplishments, which is the primary source of self-efficacy information. Morgan and Giacobbi (2006) supported previous findings that the coach-athlete relationship was important and that coaches served in an advisory role to their athletes. Additionally, those individuals who were higher in self-efficacy may have been more receptive to informational support due to having a higher performance orientation (Vealey, 1988). Rees and Freeman (2009) cautioned that more important than receiving social support, was receiving the required social support at the required time.

The strength and direction of correlations that exist between specific social support factors in the pre-items exist mostly in the same social support factors in the present items. The only exception is in the correlation that exists between esteem and tangible social support which changed from 0.73 (pre-) to 0.46 (post-). Significant correlations existed between all of the pre- and post-social support factors, except for the correlation between esteem social support (pre-) and tangible social support (post-) as well as informational social support (pre-) and tangible social support (post-). Rees and Hardy (2004) also found significant correlations between each of the four social support factors, including the correlation between esteem social support and tangible social support as well as informational social support and tangible social support.

4.7. Chapter conclusion

Chapter 4 presented the results of the study according to the aims of the study. The nature of change in both self-efficacy and social support over the duration of the academy season was significant. In exploring the correlations between the two constructs, various correlations were found to be significant. The findings related to each of the aims were then discussed. Chapter 5
presents conclusions and limitations of the present study as well as recommendations for future studies.
CHAPTER 5
CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

5.1. Chapter overview

The previous chapter presented the results of the present investigation together with a discussion. Chapter 5 presents the conclusions and limitations of the present study and offers recommendations for future research. It also provides implications for practice.

5.2. Conclusions

Significant changes in self-efficacy, esteem social support, informational social support and tangible social support over the duration of an academy season was found. Vealey (1988) raised the question of whether athletes progressed to elite level because of high levels of confidence or whether their confidence levels improved due to being elite athletes. The present study revealed that the provincial academy cricketers began the academy with a relatively high level of self-efficacy and that this level of self-efficacy improved during the academy programme. Additionally, a significant correlation was found between self-efficacy and informational social support. This finding confirms the notion that social support may influence self-efficacy through the channel of performance accomplishments (Bandura, 1997).

The present study has provided an initial insight into the role of self-efficacy and social support in talented provincial academy cricketers, especially within a South African context. The sample used in the present study was a good representation of South African Provincial Academy cricketers as 65 of the possible 71 South African Provincial Academy cricketers participated in the present study. The sample used in the present study was a good representation
of the ethnicity of the South African population as a whole. The sample used in the present study was also well-represented in terms of the specialization of roles.

As far as the present researcher is aware, this is the first South African study of its kind. The present study extends the limited international research already done. The present study also contributes to the limited research done on social support in sport both nationally and internationally. The present study provides important information about the limitations in research design and methodology for future researchers’ contribution to the research interest area of self-efficacy and social support in sport.

5.3. Limitations

There is no perfect investigation and it is impossible to eliminate all problems in a research study (Drew, Hardman & Hart, 1996). Potential limitations are often numerous even in the most carefully planned research study (De Vos, Strydom, Fouché & Delport, 2002). Limitations originate from two sources: Firstly, decision as to the method in which to conduct the study and secondly, difficulties which arise from conducting the study itself (Cone & Foster, 2006). A discussion of the limitations of the present study follows.

Many researchers have advocated the use of retrospective techniques in data collection in areas such as anxiety and performance in sport (Butt, Weinberg & Horn, 2003; Randle & Weinberg, 1997). The advantage of the retrospective techniques used in the present study is that the participants were able to process their feelings over the six month duration of the academy to determine the changes in both self-efficacy and social support. However, the disadvantage of using retrospective techniques lies in the possibility that participants may not be able to
accurately reflect their feelings six months prior to completing the questionnaires due to not recognizing their feelings at that stage.

The assessment measures used in the present study were not standardized measures. The validity of both measures is of concern due to them not being pilot tested before the study to verify test adaptation. Further validation work needs to be conducted on both measures used before the results of the present study can be viewed with greater confidence.

The sample consisted of 65 male, provincial academy cricketers. Thus the sample was relatively small and unique. However, the sample group reflected similarities in ethnicity to the South African population as well as similarities in specialized roles to a larger sample of professional cricketers (www.iplt20.com). Due to the relatively small sample size, the findings of this study are not generalisable.

5.4. Recommendations

Drawing on the limitations of the present study, the following recommendations for future research are made. In order to improve on the retrospective method used in the present study, the pre-post test method would be preferred. This would decrease the likelihood of inaccurate self-reporting of each construct as experienced and/or perceived at the start of the academy.

A larger sample which includes more black people, to more accurately reflect the population of South Africa, should be considered for further research. Additionally, a cricket sample across various cricket playing levels might be useful to improve the generalisability of results. Future research should aim to provide psychometrically sound measures to assess self-efficacy and social support. It might be useful to specifically concentrate on improving the inter-item reliability of the two measures.
To further develop understanding, future studies should consider prospective/longitudinal studies in order to more clearly clarify the causal chain linking social support and self-efficacy and ultimately to performance. Although self-efficacy and social support were assessed in relation to the academy season, performance was not assessed. In general social psychology, self-efficacy has been found to mediate the relationship between social support and adaptive outcomes such as performance (Duncan & McAuley, 1993). Future research could therefore examine whether the social support-performance relationship is mediated by self-confidence or other psychological states (Cohen, Gottlieb & Underwood, 2000).

In future research, it might be useful to investigate who the primary providers of social support are for this age group. Because 18-25 years of age is a transition period in which most boys of this age are moving away from home and into a new environment, they might have to change their social support resources from parents and friends to coaches and teammates. This is similar to the recommendation made by Rees and Hardy (2004) after speculation that social support may fluctuate in tennis players who play tennis tournaments away from home. Based on the reportedly high levels of self-efficacy and social support before the academy started, it might be useful to reproduce this study in less skilled athletes.

5.5. Implications for practice

Although the results of the present study need to be used with caution because of the non-psychometric properties of the measures, there are some implications that may be useful for sport psychologists/consultants, coaches, athletes and for social support providers in general.

Results of the present study support the value of providing informational support in order to improve self-efficacy. It may be important then to encourage and re-iterate the value of past
performances – both positive and negative – in integrating positive reinforcement and lessons learnt from these experiences. Results also highlighted the value of cricket academies in improving a cricketer’s self-efficacy and social support through the services provided as part of the academy.

5.6. Chapter conclusion

Chapter 5 presented conclusions, limitations and recommendations. The present study has provided an initial insight into role of self-efficacy and social support in talented cricketers, especially within a South African context. It has highlighted the need for further research to be done on the validation of self-efficacy and social support measures. Furthermore, the need for studies of a similar nature has been recognised. Finally, this chapter reviewed the implications that this study might have for the applied settings of sport psychology.
REFERENCES


Appendix A: Biographical information and self-efficacy measure

Date of birth: ___________________________ Age: ___________________________

Race: □ Black □ Coloured □ Indian □ White □ Other

Contact Telephone: ___________________________

Provincial Academy:

Specialised Role: □ Batting □ Bowling □ All-rounder □ 'Keeper

Highest achievement in cricket: ___________________________

Number of years in cricket academy: □ 1 □ 2 □ 3

**Physical Self-Efficacy Measure** (Expanded from Cox, Martens & Russell, 2003)

Indicate (X) the response that best describes your belief relating to your cricketing ability on each item:

**INSTRUCTIONS:** 1. Complete the left-hand column by placing an X in the box that closely matches your view of the statement in the centre.

1 = Strongly disagree  2 = Disagree  3 = Neutral  4 = Agree  5 = Strongly Agree

2. Repeat the same procedure for the right-hand column.

3. Proceed to the following statement.

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<th>AT PRESENT:</th>
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Appendix B: Social support measure

**Social Support Measure** (Adapted from Rees & Freeman, 2007)

**INSTRUCTIONS:**

1. Complete the left-hand column by placing an X in the box that closely matches your view of the statement in the centre.

1 = Strongly disagree  2 = Disagree  3 = Neutral  4 = Agree  5 = Strongly Agree

2. Repeat the same procedure for the right-hand column.

3. Proceed to the following statement.

I have someone who:

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1. is always there for me.

2. lifts me when I’m down.

3. gives me technical advice.

4. helps me with my finances.

5. listens to my concerns.

6. believes in me.

7. helps to put things into perspective.

8. helps with transport.

9. gives me moral support.

10. encourages me to keep going.
|   |   |   |   |   | 11. gives me constructive criticism. |   |   |   |   | 12. helps with tasks to leave me free to practice. |   |   |   |   | 13. talks things through with me. |   |   |   |   | 14. instils in me a sense of self-belief. |   |   |   |   | 15. gives advice about coping with competitive situations. |   |   |   |   | 16. helps with accommodation. |   |   |   |   |
Appendix C: Informed consent form for research

INFORMED CONSENT FORM for RESEARCH
SA Cricket Academies
Miss. J. Cowan, supervised by Dr. C.L. Slogrove
Contact Person: Jenna Cowan

Dear Academy Cricketer

I am asking for you to participate in a research study. The purpose of this study is to investigate the relationship between social support and cricket self-efficacy.

INFORMATION
You will be asked to complete two brief questionnaires at the start of your involvement in the SA Academy week. These questionnaires will measure the types of social support that you experience as well as the strength of your self-efficacy (self-confidence).

RISKS
There are no known risks related to this study.

BENEFITS
There are no immediate benefits from your participation in this study. However, this study may guide future talent identification programmes in supporting the roles of self-efficacy and social support in sport.

CONFIDENTIALITY
The information obtained will be kept strictly confidential. Data will be stored securely and accessed only by the principal researcher. No reference will be made in oral or written reports which could link you to the study.
CONTACT
If you have any question/s at any time about the study or the procedures involved, the principal researcher can be contacted at Jenna.Cowan2@nmmu.ac.za. If you feel that you have not been treated in accordance with the criteria described on this form, or your rights as a participant have been violated during the course of this project, you may contact the Director, Research Capacity Development, NMMU (Tel: 041 504 2538).

PARTICIPATION
Your participation in this study is voluntary; you may decline to participate without penalty. If you decide to participate, you may withdraw from the study at any time without penalty and without loss of benefits to which you are otherwise entitled. If you withdraw from the study before data collection is completed, your data will be returned to you or destroyed at your request.

CONSENT
"I have read and understand the above information. I have received a copy of this form. I agree to participate in this study with the understanding that I may withdraw my name at any time."

Name: ____________________________  Surname: ____________________________
Date: ____________________________  Signature: ____________________________
Project Co-ordinator’s Signature: ____________________________  Date: ____________
