GOAL ORIENTATION PROFILES AMONG YOUNG SOCCER PLAYERS' IN RELATION TO THEIR USE OF PSYCHOLOGICAL SKILLS

**Abstract**

To further investigate athletes’ goal orientations in relation to their use of psychological skills, the present study examined the following objectives: 1) the goal orientations of young Swedish soccer players, (2) their use of psychological skills in both practice and competition and (3) the relationship between their goal orientations and use of psychological skills. Participants were 171 young soccer players from five Swedish high schools. The Perceptions of Success Questionnaire and the Test of Performance Strategies were administered to meet the objectives. Results showed no significant difference between athletes’ task (3.40 ± 1.32; M ± SD) and ego (3.32 ± 1.18) goal orientations. Results further revealed that athletes used more psychological skills in association with competition (3.21 ± .67) than in practice (2.74 ± .63). Moreover, results showed that athletes low in ego orientation used more psychological skills (3.83 ± .67) in practice than athletes high in ego (2.68 ± .60). A recommendation for coaches is to emphasize the importance of using PST in relation to practice in order to maximize athletes’ performances. Results have been discussed in relation to previous research of achievement motivation and athletes’ use of psychological skills.

**Keywords:** Achievement Goal Theory, goal orientation profiles, psychological skills, and young soccer players.
För att ytterligare utforska idrotтарes målorienteringar i relation till deras användande av psykologiska färdigheter har följande syften undersömts: (1) målorienteringen hos unga svenska fotbollsspelare, (2) deras användande av psykologiska färdigheter i tävling och träning, samt (3) relationen mellan deras målorienteringprofiler och användande av psykologiska färdigheter. Deltagarna var 171 unga fotbollsspelare från fem svenska gymnasieskolor. Perceptions of Success Questionnaire och Test of Performance Strategies användes för att möta studiens syften. Resultaten visade ingen signifikant skillnad mellan idrottarnas task (3.40 ± 1.32; M ± SD) och ego (3.32 ± 1.18) målorienteringar. Vidare visade resultaten att idrottarna använde mer psykologiska färdigheter i samband med tävling (3.21 ± .67) än i träning (2.74 ± .63). Resultaten visade även att idrottare som uppvisar en låg ego orientering använde mer psykologiska färdigheter (3.83 ± .67) i samband med träning jämfört med idrottare som uppvisar en hög ego orientering (2.68 ± .60). En rekommendation för tränare är att betona vikten av att använda PST i samband med träning för att maximera idrotтарes prestationer. Resultaten har diskuterats i relation till tidigare forskning om idrottars målorienteringar och deras användande av psykologiska färdigheter.

Nyckelord: Achievement Goal Theory, målorienteringprofiler, psykologiska färdigheter och unga fotbollsspelare.
Introduction

Studies have shown that there is a relationship between athletes’ goal orientation profiles and their use of psychological skills (Christensen, 2010; Cumming, Hall, Harwood & Gammage, 2002; Harwood, Cumming & Fletcher, 2004; Harwood, Cumming & Hall, 2003). Early research on motivation focused on the effects the individuals’ goal orientations had on their physical activity (Roberts, Treasure & Conroy, 2007). However, more recent studies have focused on competitive activities and thereby also on what motivates individuals’ to perform in sport contexts. Achievement Goal Theory (AGT) has been the most popular approach (Roberts, et al., 2007) to examine factors that determine athlete’s motivated behavior in sport contexts (Nicholls, 1984, 1989). Furthermore, AGT suggests that athletes can be either task and/or ego oriented. According to AGT, it has been suggested that differences in individuals achievement goal orientations are related to perceived ability and definition of success, more specifically, individuals with a task-orientated motivation defines, for example mastery and personal development as success while individuals’ with a ego orientated motivation feel successful when they show normative superiority over others (Nicholls, 1989; Roberts, et al., 2007).

Evidence in research supports the fact that elite athletes’ use mental training techniques in order to achieve success in sport (Durand-Bush & Salmela, 2002; Gould, Finch & Jackson, 1993). Since the use of psychological skills have been found to enhance athletes’ performances it seems important for future research to acquire more knowledge about the relationship between athletes’ use of psychological skills and their goal orientations. Only one study (Harwood, et al., 2004) has investigated the relationship between athletes’ goal orientations and use of psychological skills and no previous study has investigated this relationship among Swedish soccer players. Therefore, this study will further try to extend the knowledge about this relationship by examine young Swedish soccer players’ use of psychological skills in relation to their goal orientation profiles. This group of athletes is chosen because soccer is the sport with the highest number of participants in Sweden (Riksidröttsförbundet, 2008) and the authors of this study wishes to generalize the results of the study to a larger population. However, the present study will, in line with previous research (Harwood, et al., 2004), only examine the four most commonly used strategies: goal setting, imagery, relaxation and self-talk. These four strategies have been identified as the primary skills used to develop self-confidence and motivation (Thomas, Murphy & Hardy, 1999). First, several key terms are defined in order to understand the theoretical and conceptual frameworks chosen for the present study which secondly will be presented. Third, a demonstration of previous research findings will follow in this area. Fourth, research examining the relationship between athletes’ goal orientations and their use of psychological skills are presented.

Definitions of key terms

Achievement motivation and achievement behavior

Achievement is defined “as the attainment of a personally or socially valued achievement goal that has meaning for the person in a physical activity context” (Roberts, et al., 2007, pp. 3-4). The term motivation has been argued to be overused, vague and defined too broadly (Roberts, et al., 2007). Further, the motivational process and the constructs that drive this process must be understood in order to understand motivation (Roberts, et al, 2007). The processes of motivation can be defined as: “the psychological constructs that energize, direct, and regulate achievement behavior” (Roberts, et al., 2007, p.3). Achievement motivation is conceptualized
by Nicholls (1984, 1989) as a result of the subjective meaning that an individual assigns attribute to success or failure. Achievement behavior is defined as “behavior directed at developing or demonstrating high rather than low ability” (Nicholls, 1984, p. 328).

**Psychological skills training**

Mahoney and Chapman (2004, p. 155) define psychological skills as: “A set of techniques and strategies used to optimize athletic performance; they are largely nonphysical in nature”. Vealey (2007) holds that psychological skills can be separated into four categories: Foundation skills (e.g., self-confidence), Performance skills (e.g., energy management), Personal development skills (e.g., interpersonal competence) and Team skills (e.g., leadership).

Mental training is the most popular term to describe different psychological techniques to enhance athletes’ performances (Morris, 1997). More recently has the term psychological skills training (PST) become popular in the literature (Morris, 1997). This term implies that the individual uses a psychological training process to develop personal skills (Morris, 1997). PST is defined by Vealey (1988, p. 319) as: “the techniques and strategies designed to teach or enhance mental skills that facilitate performance and a positive approach to sport competition” The term PST will be used in the present study since it is the definition that best capture the full meaning of the process in developing psychological skills.

**Goal setting**

Goals has been defined as “what an individual is trying to accomplish; it is the object or aim of an action” (Locke, Shaw, Saari, & Latham, 1981. p.126). There are several ways to subdivide goals, the one which has been widely accepted is the one proposed by Martens (1987). Martens, (1987) separated goals into two categories, (1) Outcome goals (i.e., ego-oriented goals), (2) Performance goals (i.e. task oriented goals). An outcome goal refers to a goal which focus on the athlete’s results in comparison to others, an example of an outcome goal is “to win”. A performance goal on the other hand focuses on improvement of ability and master a task, for example, self-improvement in relation to a previous performance. Hardy, Jones & Gould (1996) added process goals as a third category of goals. A process goal can be viewed as “part-goal” which by itself is not important, since the object of a process goal is to enhance the individuals’ possibility to achieve success with a “main goal” (i.e., ego or task).

**Imagery**

Morris, Spittle and Watt (2005) describes that there are several ways to define imagery, and they also conclude that this is a rather difficult task. Several other terms have been used such as mental practice that refers to covert mental repetition of a specific skill (Morris, 1997) and is further defined as “the cognitive rehearsal of a task prior to performance” (Driskell, Copper, & Moran, 1994, p. 489). The present study will use a modified version of Morris and colleagues (2005) definition of imagery: “Imagery in sport contexts can be defined as the voluntary or spontaneous creation or re-creation of an experience generated from memorial information, involving quasi-sensorial, quasi-perceptional, and quasi-affective characteristics which may occur in the absence of the real stimulus antecedents normally associated with the actual experience and which may have physiological and psychological effects on the imager” (Wallsbeck & Weibull., 2009, p. 17).

**Relaxation**

Most athletes sometimes experience anxiety or stress and there are probably as many strategies to control these challenges as there are athletes, however, there are some strategies that are more common than others among athletes (Hardy et al., 1996). One of these are
relaxation. Thelwell et al. (2010) describes that relaxation is an effective technique athletes can use to be able to stay focused and make correct decisions even if the athlete is fatigued. Relaxation can be deliberate and conscious, however most athletes have sometimes used relaxation without consciously thinking about it. It appears to be a part of many athletes’ natural preparations before a competition (Hardy, et al., 1996).

Self-Talk
Although there are many definitions for the strategy self-talk the present study will use the definition suggested by Hardy (2006, p. 84) that holds that self-talk should be defined as: “(a) verbalizations or statements addressed to the self; (b) multidimensional in nature; (c) having interpretive elements associated with the content of statements employed; (d) is somewhat dynamic; and (e) serving at least two functions: instructional and motivational, for the athlete”.

Theoretical and conceptual frameworks
Achievement goal theory
According to Roberts et al. (2007) one of the major and most important theories of motivation and achievement behavior is Nicholls’ AGT. According to AGT, within an individual’s personal theory of achievement, each individual has a predisposition to be either task- or ego involved (Roberts, et al., 2007). With a task involvement, the athlete is focused on gaining skill or knowledge, to exhibit effort, demonstrate mastery and experience personal improvement (Nicholls, 1984, 1989). With an ego state of involvement, the main goal of action is to demonstrate superiority over others with as little effort as possible. This means that different combinations can exist in an individual such as high task/high ego, low task/high ego, low task/low ego and high task/low ego (Nicholls, 1989). The theory also assumes that achievement beliefs are governed by achievement goals and influences individuals’ succeeding decision-making and behavior (Nicholls, 1984, 1989). Moreover, the motivational processes of AGT are energized by the desire of demonstration and development of an individual’s competence (Nicholls, 1984, 1989). AGT further holds that the development and demonstration of competence and the avoidance of demonstrating incompetence is assumed to be the energizing force and main goal of action (Roberts, et al., 2007). AGT is based on the assumption that an individual strive for development and wants to feel competent. That can be achieved by either showing high ability or avoid showing low ability (Chi, 2002; Nicholls, 1989; Roberts, et al., 2007).

Psychological skills training
Below a framework of understanding PST is shown in Figure 1. The development of performance skills, foundation skills, personal development skills and team skills is the objectives of psychological skills training (Vealey, 2007). The social cultural context arrow represents that the psychological training process can be influenced by sport and society contexts. The physical training arrow represents the effect of physical training. To enhance psychological skills the consultant’s approach is defined by his or hers strategies, techniques, model and philosophy. The consultant’s interpersonal and technical effectiveness mediates this process of PST. Vealey (2007) further states that the PST process is a complex integrative approach with multiple layers to help athletes develop psychological skills. The multiple layers that builds up the PST process, is an important part of a comprehensive approach to PST (Vealey, 2007). The consultant’s philosophical foundations are the initial process of PST, which conceptualizes into an interventional model with applicable and effective strategies and techniques (Vealey, 2007).
**Figure 1.** A framework for understanding mental skills training in sport. Adapted from Vealey (2007, p. 291).

**Previous research findings**

**Athletes’ achievement motivation**

Previous research in achievement motivation in sports has focused on the significance of multiple achievement goals that individuals adopt in achievement contexts (Harwood, Hardy & Swain, 2000; Nicholls, 1984). An achievement goal was considered to be the purpose of achievement behavior, and to demonstrate or develop high ability or avoiding demonstrating low ability was presumed to be the purpose of achievement behavior (Nicholls, 1984). Roberts (1992) holds that the types of goals that individuals adopt demonstrate variations in achievement behaviors. Individuals will focus on achievement goals that fulfill their needs and satisfy their personal theory of achievement (Harwood, et al., 2000). The meaning that achievement situations are assigned by the individual is represented by these achievement goals, which organize how the individual defines success and failure within a cognitive structure (Urdan, 1997 in Harwood, et al., 2000). Achievement goals are assumed to be a critical determinant of how much effort an individual puts into an achievement situation (Roberts, et al., 2007).

**Achievement goal orientation**

Nicholls (1984, 1989) argue that there are two conceptions of ability that represents different individual theories of achievement enclosed within two goal orientations that are orthogonal. The conception of ability that an individual adopt is related to these two goal orientations and within a specific achievement context the two goal orientations act as goals of action. Nicholls (1989) argue that there are at least two conceptions of ability in achievement contexts. An undifferentiated concept of ability which means that the individual cannot distinguish what ability is and what luck is, or task difficulty from effort and a differentiated concept of ability which means that the individual is able to separate ability from luck and difficulty.

When an individual has an undifferentiated concept of ability their perceived ability becomes irrelevant because the individual is not trying to demonstrate their ability in relation to others but rather trying to master a task or develop their skills (i.e., task-oriented motivation).

Second, for individuals who have a differentiated concept of ability becomes their perceived ability very important because they are trying to demonstrate their ability against others (i.e.,
ego-oriented), and they feel competent if they show superiority against others (Roberts, et al., 2007).

Nicholls’ (1984) initial research examining motivation-related correlates focused on factors such as task choice, beliefs about the causes of success, attributions and performance (Nicholls, 1984). Given the fact that task and ego goal orientated individuals differ in a fundamental way in how to define success and competence it can be argued that thoughts, emotions and behaviors among athletes will be influenced by goal orientations. The task- and/or ego involving structure of the achievement context are assumed to have a great impact on the activation of task and ego involvement (Ames, 1992; Dweck & Legget, 1988). In sport contexts cognitive variables (e.g., beliefs about success), affective responses (e.g., arousal) and behavioral outcomes (e.g., persistence) have gained a lot of attention in research in the athletic domain (Weiss & Ferrer-Caja, 2002). Sport participants with a high task-low ego orientation have been found to adopt more motivated behavior, positive affective responses and functional thought patterns (Weiss & Ferrer-Caja, 2002).

Lochbaum and Roberts’ (1993) study on 296 high school students from a variety of sports (e.g., football, basketball, track and field, volleyball, and baseball) investigated the relationship between task and ego goal orientations. They found that adaptive achievement strategies were the primary focus for athletes with a task orientation. In contrary, maladaptive achievement strategies were the primary focus for athletes with a high ego orientation. Further, task oriented athletes with adaptive beliefs about success believed that effort and persistence lead to success. Ego oriented athletes in contrary used normative criteria to define success and achievement.

Goal orientations should not be viewed as traits or based on human needs (Roberts, et al, 2007) and should not be considered as static, as they can change from one moment to another. An athlete may enter a competition with a strong task-involvement but events during the competition can alter the athletes’ focus to being more ego-involved wishing to demonstrate superiority to others. They should rather be considered as cognitive schemas that can change as information regarding an individual’s performance on a task is processed. However, goal orientations do have some stability over time (Duda & Whitehead, 1998; Roberts, Treasure & Balague, 1998; Roberts, et al., 2007).

Perceptions of competence
Athletes with a task or ego orientation differ in an essential way in how they define and assess competence (Roberts, et al., 2007). Individuals with a task-orientation tend to base their competence on a self-referenced criteria and mastery of the task is their main focus (Elliot & Dweck, 1988 in Roberts, et al., 2007). On the other hand, ego-oriented individuals develop competence when comparing themselves to others in a favorable manner. Individuals with a task orientation develop either high or low perceptions of competence and success. In contrast, individuals that are high in ego orientation and with low perceived ability may experience lower perceptions of success, perceived competence and effort (Roberts, et al., 2007). In a study that investigated goal orientations among Dutch soccer players, it was found that the coaches judged the athletes who possess a high task orientation to have greater soccer skills than athletes with a low task orientation (Van Yperen & Duda, 1999).

In summary, according to AGT, individuals’ achievement goals influence their achievement beliefs and behavior in achievement contexts (Roberts, et al., 2007). AGT also states that the main objective for an individual is the desire to develop and demonstrate competence and to avoid demonstrating incompetence. Finally, AGT also assumes that individuals are
predisposed to be task and/or ego involved based on previous experiences in significant achievement contexts (Roberts, et al., 2007).

Psychological skills training
Morris (1997) holds that skill development that helps competitive athletes reaching their peak performance is the main goal for PST. Peak performances are described by Krane and Williams (2006, p. 207) as: “those magic moments where an athlete puts it all together—both physically and mentally”. Athletes have been found to use psychological training techniques more frequently in competition than in practice (Frey, Laguna & Ravizza, 2003). There is also evidence in research that athletes competing at international level use more PST than athletes competing at national level (Calmels, et al., 2003 in Vealey, 2007). The international-level competitive athletes used more complex psychological strategies and techniques and used them more regularly than national level competitive athletes. A study using the Psychological Inventory for Sport developed by Mahoney, Gabriel and Perkins (PSIS; 1987) has found that elite athletes reported that they experienced less anxiety, had better ability to concentrate before and during competition and had a higher motivation to achieve success than less elite athletes (e.g., Murphy & Tammen, 1998). Studies using the Test of Performance Strategies (TOPS; Thomas, Murphy & Hardy, 1999) have shown that compared to non-elite athletes’, athletes competing at an international level athletes scored higher on goal setting, activation and imagery. Another study using TOPS discovered that athletes reporting high use of psychological skills also had a higher perception of success compared to athletes’ that reported low or moderate use of psychological skills (Frey, et al., 2003). Thelwell, Greenlees and Weston (2006) conducted a soccer midfielder-specific psychological skills intervention (relaxation, imagery, self-talk) using a multiple-baseline-across-individuals design. Four out of five participants showed clear improvements on soccer skills on all of the dependent variables (1st touch percentage, pass percentage, tackle percentage).

Use and effectiveness of goal setting in sports
Research on athletes’ use of goal setting have shown that almost all athletes set goals but most of them do not consider goals to effectively enhance their performance (e.g., Burton, Weinberg, Yukelson & Weigand, 1998). However, goals do not automatically increase an athlete’s performance. Goals must be used systematically and be included in a PST program so that the athletes’ focuses attention on specific tasks, increases intensity and effort and encourages persistence when experiencing setbacks (Locke & Latham, 1990). Researchers on goal setting in sports have investigated what kinds of goals are most effective in different kinds of situations. Whether an athlete should set outcome, performance or process goals depends greatly on the situation and psychological skills are enhanced when athletes focus on the right goals at the right time. Studies also show that difficult, specific, short and long-term goals leads to a higher performance than vague or no goals at all (Duda, 2004).

Use and effectiveness of imagery in sports
Imagery has become very popular as a PST technique among athletes and has gained a lot of attention in the PST literature (Morris, et al., 2005). Orlick and Partington (1988) found that 99 per cent of the 235 athletes that competed at the 1984 Olympic Games (Los Angeles and Sarajevo) reported that they use imagery in preparation with different purposes (e.g., execution of perfect skills during training sessions and to mentally prepare for competition). Studies investigating athletes’ use of imagery (e.g., Cumming & Hall, 2002; Salmon, et al., 1994) have found that imagery is used more extensively and more systematically by more successful athletes in comparison to less successful athletes. More successful athletes also have better imagery skills than less successful athletes. Research has also found that athletes’
performances can effectively be improved by imagery training (Morris, et al., 2005). Using imagery in preparation for performance can enhance strength and muscular endurance towards tasks and golf putting (Vealey & Greenleaf, 2006). During competition, imagery training can effectively enhance athlete’s self-confidence (Callow, Hardy & Hall, 2001; Garza & Feltz, 1998). Investigating soccer players’ use of imagery by using the Imagery Use Questionnaire for Soccer Players, Salmon et al. (1994) discovered that imagery was more common during competition than before or after. Elite athletes reported using imagery more than non-elite athletes.

Use and effectiveness of relaxation in sports
Vealey (2007) describes that relaxation may be a good way to reduce manage stress in sport. Several studies show that successful elite athletes use relaxation on a regular basis to control their levels of stress and anxiety (Durand-Bush & Salmela, 2002; Gould, et.al., 1993). Further on, Vealey (2007) states that the majority of all mental training programs include relaxation, because of this it is hard to say what effect relaxation really have on athletes’ development and performance. Physical relaxation techniques may be a powerful tool for athletes to manage physical tension that different stressors creates among athletes (Vealey, 2007).

Research has found that relaxation techniques are regularly used by successful elite athletes to cope with their physical energy level (Durand-Bush & Salmela, 2002). This research has mainly focused on testing the “matching hypothesis” from multidimensional anxiety theory that holds that for an athlete to effectively manage anxiety a match is needed between the type of intervention strategy/technique used and the type of anxiety experienced by the athlete (cognitive or somatic; Vealey, 2007). Studies have shown that athletes experiencing somatic anxiety benefited more from using physical relaxation strategies specifically targeted for somatic anxiety than for strategies targeted on reducing cognitive anxiety (e.g., Durand-Bush & Salmela, 2002).

Use and effectiveness of self-talk in sports
Research investigating the use of self-talk has found that self-confidence was enhanced (Hatzigeorgiadis, Zourbanos, Mpoumpaki and Theodorakis, 2009; Johnson, Hrycaiko, Johnson & Hallas, 2004; Thelwell & Greenlees, 2003) and cognitive anxiety was decreased (Hatzigeorgiadis, et al., 2009). Self-talk helped young tennis players concentrate and improved their motivation. It also appeared that negative self-talk was more common among losers than among winners (Van Raalte, Brewer, Rivera & Petipas, 1994). Research using questionnaires (e.g., Hardy, Gammage & Hall, 2001; Johnson, et al, 2004) has discovered that Structured self-talk enhances skill acquisition and performance among athletes. Structured self-talk can also be effective for using strategy, psyching up for emotion and effort, relaxation, attentional control and maintaining confidence (e.g., Hardy, et al., 2001). When investigating the function of attention in self-talk in an experimental study Hatzigeorgiadis, Theodorakis and Zourbanos (2004) discovered that the use of self-talk enhanced task performance, and interfering thoughts decreased. A self-talk intervention program for young female soccer players discovered that two of three participants showed improved shooting performance (Johnson, et al., 2004). Moreover, research by Hatzigeorgiadis and colleagues (2004) found that self-talk can be effective in enhancing different types of sport performance (e.g., precision vs. power tasks). Future research should therefore try to match the type of self-talk with type of task.

In summary, evidence in research supports the fact that the use of psychological skills can effectively enhance athletes’ performances (e.g., Greenspan & Feltz, 1989). Studies have also shown that PST is more commonly used in association with competition than with practice (e.g., Frey, Laguna & Ravizza, 2003). Therefore, it could be argued that there is a greater
focus on the use of PST in relation to competition. Henceforth, a need for future research seems to investigate how frequently athletes use PST in relation to practice.

**Relationships between goal orientations and use of psychological skills**

Since Nicholls (1989) claims that goal orientation is orthogonal, most research has chosen to study goal orientation incorporating goal profiling, which in essence means that they are able to study different combinations of goal orientation (i.e. different task/ego levels) ranging from low to moderate to high level. Early studies on achievement goal studied task and ego as two different phenomena, however since it was suggested that goal orientation is orthogonal researchers started to use goal profiling. There is a lot of research that has studied the relationship between individuals’ achievement goals and their behavior and cognitions (Ames, 1992; Duda, 1992; Roberts, et al., 2007). However, previous researchers claim that there are only a few studies who have investigated the relationship between athletes’ goal orientations and their use of psychological skills (e.g., Cumming, et al., 2002; Harwood, et al., 2003; 2004; Christensen, 2010).

With goal profiling as a technique for studying goal orientation, Harwood et al. (2003; 2004) shows that task orientation seems to be associated with positive psychological responses. However that statement does not automatically say that ego-orientation should be connected with poor psychological responses. That is, Harwood et al. (2003) also argues that a moderate or high level of ego orientation also can be positively linked to psychological responses as long as the individual combine it with a corresponding or higher level of task orientation. However, there is a poor understanding in research regarding how these combinations of goal orientations is associated with the use of psychological skills (Harwood, et al., 2003). Until 2004, most studies investigated non-elite athletes and very few investigated elite athletes. To fill this gap in research Harwood with colleagues investigated associations between achievement goal orientations and psychological skills use among young elite athletes (Harwood et al., 2004). Their conclusion was that moderate or high levels of ego orientation can be associated with positive psychological behavior as long as the individual has a corresponding or higher level of task orientation.

Even though that there are a huge number of techniques athletes use in mental training there are four who seems to be more prominent, namely Imagery, Self-talk, Goal setting and Relaxation (Harwood, et al., 2004). Even though this is a well-known fact there are very few who have studied the relationship between different combinations of achievement goals and the use of psychological skills. Previous research in sports psychology shows only four studies who have examined this relationship.

Cumming et al. (2002) investigated the effect of motivational profiles on athletes’ imagery use, using a sample of 105 Canadian swimmers competing at local level. They hypothesized that the results would show that imagery was a function of which type of achievement goal profile used. Their results revealed that the swimmers with a moderate-task/high ego goal profile used more imagery than other goal profile clusters.

Harwood et al. (2003) also investigated the relationship between the motivational profiles and athletes’ imagery use using a sample of 290 elite young athletes competing in a broad range of sports (e.g., badminton, field hockey, football, rugby). They found that there was a relationship between task and ego goal orientations and separate functions of imagery. Moreover, these functions of imagery seemed to be coherent with the characteristics normally associated with each motivational profile. More specifically, a positive relationship was found between an ego orientation and imaging demonstrating superior abilities in comparison to
other athletes (motivational specific imagery), whereas a positive relationship was found between a task orientation and imaging developing and executing skills (cognitive specific imagery) and personal mastery, such as mental toughness and self-confidence (motivational general-mastery imagery).

Harwood and colleagues (2004) examined the relationship between goal orientation profiles and the use of psychological skills with measurements including the POSQ and TOPS questionnaires and found that athletes’ with high task/low ego orientations used more imagery, goal-setting and positive self-talk compared to athletes with low task/high ego- and moderate task/low ego orientations. The most recent study examining this relationship involved 97 young elite Swedish athletes using cluster profile analyses (Christensen, 2010). Differently from the other studies, which only measured the frequency of psychological skills use, this study also measured the athletes’ experience of imagery (i.e., content, purpose) and why they used imagery. Results revealed a relationship between the athletes’ goal orientation profiles and their imagery experience profiles. Athletes’ with a high task orientation reported a more frequent experience of positive imagery contents (e.g., coping with arousal and anxiety), whereas athletes high in ego orientation reported a more frequent experience of negative imagery contents (e.g., perform better than others).

In summary, a task orientation seems to be linked to positive psychological responses. However, some research (e.g., Harwood, et al., 2003) claims that a high ego orientation might be beneficial if the athlete has a corresponding or higher level of task orientation. Only a few studies have investigated this relationship, therefore it appears to be a lack of knowledge on how athletes’ goal orientations are related to their use of psychological skills.

**Measurements of goal orientations and use of psychological skills**

**Goal orientations**

In the sport and exercise domain research on different goal perspectives developed in theories about achievement goals (e.g., Ames, 1992; Dweck & Legget, 1988; Nicholls, 1984, 1989, 1992). The desire to demonstrate competence is the central tenet in achievement settings is shared by each of these educational researchers, and perceptions of ability is therefore a central component in an individual’s strive for achievement (Duda & Whitehead, 1998). Nicholls’ (1989) research has mainly focused on correlations of task and ego orientations related to motivation. Researchers like Dweck and Legget (1988) argue that goal perspectives are undergirded by beliefs about intelligence and that they are bipolar.

Although a few qualitative (e.g., Hayashi, 1996; Thorne & Duda, 1995) methods have been used to investigate goal orientations, quantitative research has been the most common method in research about goal orientation (Duda & Whitehead, 1998). Ewing’s (1981) study of achievement goals in sport is described in Duda and Whitehead’s (1998) comprehensive overview of quantitative studies in achievement motivation. Ewing created the Achievement Orientation Questionnaire (AOQ), which was the first questionnaire to measure achievement goals in sport. The participants who answerers the questionnaire are requested to recall a successful event in sport and then rate on a 5-point Likert Scale how their successful feelings correlate with 15 suggestions (e.g., I felt successful when I met the challenge). However, the AOQ was shown to have poor validity and reliability. In later research the Task and Ego Orientation in Sport Questionnaire (TEOSQ; Duda, 1989) and the Perceptions of Success Questionnaire (POSQ; Roberts, Treasure & Balague, 1998) was developed to investigate individual differences in goal orientations related to the AGT. By reading the stem “I feel
successful in sport when” that is followed be several statements participants are in both questionnaires requested to rate their agreement on a 5-point Likert Scale. The TEOSQ was developed from an educational context and therefore a need for a more sport specific measure resulted in the POSQ questionnaire. Both of the instruments have been found to show acceptable validity and reliability (Duda & Whitehead, 1998).

Psychological skills research

Psychological factors that can enhance athletes’ performances have been in focus for researchers for a long time. The personality trait theory was the foundation for the first attempts to measure the consequences that these constructs could have on athletic performances (Murphy & Tammen, 1998). These psychological constructs were conceptualized differently after social cognitive theories progressed during the 1970s and 1980s. The focus changed from emphasizing personal characteristics over time to focus on situational specificity, and the social environments influence on individual differences in behavior became the main issue of interest (Murphy & Tammen, 1998). A major tenet in the social cognitive theories was that differences between individuals were a result of learning experiences. The very first surveys to study athletes’ use of psychological skills were mostly anecdotal but a more systematic way to investigate elite athletes’ self-reported experiences started in the late 1980s (Murphy & Tammen, 1998). The study by Orlick and Partington (1988) became a major breakthrough. A common focus in more recent research has been to examine psychological characteristics related to peak performance (Krane & Williams, 2006).

Most of the studies investigating the use of psychological skills among athletes have used quantitative methods (Thomas, et al., 1999) and two of the most used have been the Psychological Inventory for Sport (PSIS) and Test of Performance Strategies (TOPS). PSIS where developed by Mahoney et al. (1987) with the purpose to examine differences in the effectiveness and use of psychological skills relevant to exceptional athletic performance across a variety of sports. The PSIS measures variables such as anxiety management, self-confidence, motivation and team emphasis (Krane & Williams, 1998). Most of the research on the general assessment of psychological skills has focused predominantly on the use of psychological skills in relation to competition (Thomas, et al., 1999). Therefore a need for an instrument that also assesses the use of psychological skills in practice resulted in the development of the TOPS (Thomas, et al., 1999). TOPS measures the frequency in which athletes use goal setting, relaxation, activation, imagery, self-talk, attentional control, negative thinking, emotional control and automaticity in competition and practice. Initial data suggest that TOPS is a very useful instrument to assess the effectiveness of the use of psychological skills (Thomas, et al., 1999).

Summary and objectives

Since previous research have suggested that an individual’s achievement behavior is affected by achievement goals and perceived ability (Roberts, et al., 2007), there is an association between athletes’ goal orientations and their use of psychological skills (Harwood, et al., 2004). Further, psychological training techniques have been found to effectively enhance athletes’ performances (e.g., Greenspan & Feltz, 1989). As previous research investigating athletes’ use of psychological skills in relation to their goal orientation profiles is limited, it would be interesting to further examine this relationship. It can be argued that a deeper understanding of this relationship could be of value for practitioners such as sport psychologists, coaches and athletes. To further extend the knowledge of the relationship between athletes’ goal orientations and use of psychological skills the objectives of the
The present study is to investigate (1) the goal orientations of young Swedish soccer players, (2) their use of psychological skills in both practice and competition and (3) the relationship between their goal orientations and use of psychological skills.

**Method**

The present study has used a quantitative approach using two questionnaires (i.e., TOPS, POSQ). A pilot study was first carried out to find out if the Swedish translation of the TOPS needed to be revised. After analyzing results from the pilot study, the original study was conducted. In the pilot study, the researchers were present when the data collection took place. However, when conducting the data collection for the original study, the questionnaires were sent by mail to the participating schools. The researchers were not able to be present during the data collection.

**Participants**

**Pilot study**

The participants for the pilot study were derived from two Swedish senior high schools. All athletes involved in the sample attended educational programs with a sport profile. The sample of the pilot study consisted of 113 athletes participating in a variety of sports, and soccer was the sport with the most participants (50%). The athletes mean age was 16.8 years (SD= 0.66). The participants competed on three different competitive levels (local, n=42; national, n=40; & international, n=31). Responsible teachers and principals at the schools allowed the athletes to participate in the pilot study by signing a written consent before the data collection was conducted. An availability sample was used for the pilot study.

**Original study**

The sample for the present study involved 171 athletes from five Swedish senior high schools offering soccer profiled educational programs. From the pilot study, 56 soccer players were included in the final study. The participants mean age was 16.83 years (SD=.73). The athletes participated at three different competitive standards ranging from local to international with 111 non-elite athletes competing at local and/or regional level, 42 athletes competing at national level and 18 elite athletes competing at international level. Before the data collection took place the athletes’ were granted participation by the schools responsible teacher and principal. In this study, data was collected from the athletes who were available at the present time when the survey collection took place, which means that an availability sample was used.

**Instruments**

**Perception of Success Questionnaire**

A Swedish translation (Christensen, 2010) of the Perception of Success Questionnaire (POSQ; Roberts, et al.,1998) was administered to examine the first objective in the present study (i.e., the goal orientation profiles among young Swedish soccer players). The POSQ consists of 12 statements that measure task and ego orientation among athletes. Six of the statements measure the individuals’ task orientation and the other six statements measure their ego orientation. All statements begin with the phrase: “I feel most successful in my sport when…” followed by task or ego oriented items. An example of a task-oriented item is: “…I perform to the best of my ability”, and an example of an ego oriented item is: “…I outperform my opponents”. On each of the 12 statements the participants are requested to rate their agreement on a 5-point Likert Scale (1 = Strongly disagree, 2 = Disagree, 3 = Neutral, 4 = Somewhat agree, 5 = Agree). The POSQ have shown high internal consistency (Duda &
Whitehead, 1998) for both the task subscale (mean alpha= .81) and the ego subscale (mean alpha = .82).

**Test of Performance Strategies**

To examine the frequency of young soccer players’ use of the four most common psychological skills (i.e., goal setting, imagery, relaxation, self-talk), the Test of Performance Strategies (Thomas, et al., 1999; See Appendix A) was used. The TOPS measures how frequent athletes use psychological skills. This instrument consists of 64 items that measure nine psychological skills in practice and competition (activation, attentional control, automaticity, emotional control, goal setting, imagery, negative thinking, relaxation, self-talk). For example, one of the questions designed to measure goal setting in competition is: “During competition, I set specific result goals for myself”, and an example of a statement that measures self-talk in practice is “I talk positively to myself to get the most out of practice”. When answering, the participants are requested to rate how often they use a certain psychological skill on a 5-point scale as follows: 1= Never, 2= Rarely, 3= Sometimes, 4= Often and 5= Always. TOPS have shown mean alpha coefficients of .74 to .80 for the eight factors measuring competitions strategies and mean alpha coefficients of .66 to .81 for the eight factors measuring practice strategies (Thomas, et al., 1999). Noticeable is that only seven of the factors is found in both the competition and practice subscale (i.e., activation, automaticity, emotional control, goal setting, imagery, relaxation, self-talk). Exploratory factor analysis (Thomas, et al., 1999) failed to identify the factor attentional control in the competition data, therefore it was replaced by the factor negative thinking for the competition subscale. It should be noted that participants answered the TOPS in its entirety. However, in line with previous studies, (e.g., Harwood, et al., 2004) only the eight subscales measuring the four key psychological skills in practice and competition were included in the data analysis for the present study.

**Swedish translation of TOPS**

The original English version of TOPS (Thomas, et al., 1999) was received and translated into Swedish (see Appendix B) by the authors of the present study. In order to examine if the Swedish translation needed revision, a pilot study was performed involving athletes from two Swedish senior high schools. The analysis of the data collected in the pilot study showed poor statistical results. More specifically, low alpha values were obtained (see Table 1) on goal setting in practice (α = .49) and relaxation in competition (α = .19). Data from subscales not included in the final data analysis are not presented. Therefore, items 10, 11, 19, 38, 44, 50, 54, 58 was deleted from the original version to achieve higher validity and not included in the TOPS used for the original study.

**Procedure**

**Pilot study**

The data collection for the pilot study was carried out during two days in November 2010. A number of schools offering sport profiled educational programs were contacted by e-mail. The email contained information regarding the purpose to validate the Swedish translation of the TOPS, as well as the procedure for the pilot study. Two of these schools accepted to participate in this study. When visiting the two schools, responsible teachers and principals granted the athletes’ participation by signing written consents (see Appendix C). The information given on these consents concerned the athletes’ rights such as voluntary participation, confidentiality and the option to end the participation without giving a reason. Thereafter, the data collection was conducted in a classroom. The athletes received the same information about their rights (APA, 2010) as their responsible teachers and principals before filling out the survey. When the athletes filled out the questionnaires the authors of the study remained in the classroom to answer questions or to straighten out any concerns. To
standardize the procedure of the data collection at the two schools, as little oral information as possible was given. The completion time of the questionnaires ranged from 10-25 minutes.

The original study
The data collection for the present study took place during November and December 2010. Contact was taken with 12 different high schools by e-mail based on a list acquired from the Swedish Football Association (SvFF). These 12 schools were selected by SvFF as high-performing and therefore regarded as interesting for the present study. The e-mail that was sent to responsible teachers and the principals at the high schools included a description of the purpose and procedure of the study. Three of these accepted to participate in the study. The participating athletes received the same information regarding ethical rights as the athletes in the pilot study. The schools also received an instruction document explaining what information the teacher should give to the athletes (see Appendix D). Before participation in the survey the athletes were informed about the objectives of the study and the ethical principles describing their rights (APA, 2010). This information was given on the first page of the survey (see Appendix E). The athletes accepted to participate by signing this document. Similarly to the pilot study, the completion time of the questionnaires ranged from 10-25 minutes.

Analyses

Descriptive analyses
The Statistical Package for the Social Sciences (SPSS; version 18.0.0) was used to analyze the data collected with the POSQ and TOPS surveys.

Athletes’ goal orientations
Within group ANOVA test of the task and ego orientation scores serving as two dependent within-subject variables was performed to examine if there were significant differences in athletes’ goal orientations.

Athletes’ use of psychological skills
Within group ANOVA test of the competition and practice TOPS scores serving as two dependent within-subjects variables was performed to examine if there was a significant difference in athletes use of psychological skills in competition and practice.

The relationship between athletes’ use of psychological skills and their goal orientation profiles
To examine if there was a relationship between athletes’ goal orientation profiles, two-way Analysis of Variance (ANOVA) tests were performed based on the goal orientation profiles that has been used in previous research (Roberts, Treasure & Kavussanu, 1996), with athletes’ goal orientations serving as independent variables and athletes’ TOPS scores serving as dependent variables. More specifically, these goal orientation profiles were created by extreme group split of the task and ego subscales of the POSQ resulted in four different groups: High Task/High Ego (HT/HE), High Task/Low Ego (HT/LE), Low Task/ High Ego (LT/HE) and Low Task/Low Ego (LT/LE).

Results

Descriptive statistics
Means and standard deviations were calculated for each dependent variable in the questionnaires. More specifically, for each subscale in the POSQ (i.e., the task and ego
subscales) and for the two themes in the TOPS (i.e., competition, practice) and for the four subscales (i.e., goal setting, imagery, relaxation, self-talk) in the TOPS. Adopting a criterion of .70 (Brace, Kemp & Snelgar, 2009), the reliability test for the pilot study revealed satisfactory mean alpha values for three out of four categories (goal setting, imagery, self-talk) for the competitive context. For the strategy relaxation in competition, the mean alpha value was low (see Table 1). In practice, reliability test showed acceptable alpha values for all categories except goal setting in practice.

Table 1
Chronbach alpha values pilot study

<table>
<thead>
<tr>
<th>Variables</th>
<th>Competition</th>
<th></th>
<th></th>
<th>Practice</th>
<th></th>
<th></th>
</tr>
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<tr>
<td></td>
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<td>M</td>
<td>SD</td>
<td>α</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Goal setting</td>
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<td>3.52</td>
<td>.87</td>
<td>.49*</td>
<td>3.07</td>
<td>.72</td>
</tr>
<tr>
<td>Imagery</td>
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<td>3.09</td>
<td>.88</td>
<td>.77</td>
<td>3.42</td>
<td>.86</td>
</tr>
<tr>
<td>Relaxation</td>
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<td>3.32</td>
<td>.55</td>
<td>.80</td>
<td>1.81</td>
<td>.71</td>
</tr>
<tr>
<td>Self-talk</td>
<td>.79</td>
<td>3.42</td>
<td>.90</td>
<td>.70</td>
<td>3.49</td>
<td>.73</td>
</tr>
</tbody>
</table>

Note. α = Cronbach’s alpha; M = mean; SD = standard deviation. Scale ratings of psychological skills use ranged from 1 to 5, where 1 = “Never”, 2 = “Rarely”, 3 = “Sometimes”, 4 = “Often” and 5 = “Always”. * = low alpha values, items were deleted from these categories to achieve higher validity for the original study.

Results of the reliability tests for the original study showed acceptable alpha values for three out of four categories (goal setting, imagery, self-talk) for the competitive context (see Table 2). The mean alpha value was low for the strategy relaxation in competition. Therefore, item 43 was deleted and not included in further analysis (α = .71 when item was deleted). In practice, all alpha values were satisfactory.

Table 2
Chronbach alpha values original study

<table>
<thead>
<tr>
<th>Variables</th>
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<th></th>
<th></th>
<th>Practice</th>
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<tr>
<td></td>
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<td>M</td>
<td>SD</td>
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<td>SD</td>
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<tr>
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<td>.78</td>
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<tr>
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<td>1.77</td>
<td>.71</td>
</tr>
<tr>
<td>Self-talk</td>
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<td>3.07</td>
<td>.87</td>
<td>.68</td>
<td>3.32</td>
<td>.74</td>
</tr>
</tbody>
</table>

Note. α = Cronbach’s alpha; M = mean; SD = standard deviation. Scale ratings of psychological skills use ranged from 1 to 5, where 1 = “Never”, 2 = “Rarely”, 3 = “Sometimes”, 4 = “Often” and 5 = “Always”.

Athletes’ goal orientations
Within group ANOVA test of the task (3.40 ± 1.32; M ± SD) and ego (3.32 ± 1.18) orientation scores serving as two dependent within-subject variables showed no significant univariate effect of the difference in athletes’ goal orientation.

Athletes’ use of psychological skills
Within group ANOVA test of the competition and practice TOPS scores serving as two dependent within-subject variables showed that there was a significant univariate effect of the difference in athletes use of psychological skills in competition and practice (F1, 170 = 190.40; p < 0.001; partial η² = .53). More specifically, the athletes reported using psychological skills more in association with competition (3.21 ± .67) than in practice (2.74 ± .63).
Use of goal setting in competition and practice
A significant difference was found between athletes’ use of goal setting in competition and practice ($F_{1,170} = 28.11, p < 0.001$, partial $\eta^2 = .14$). More specifically, athletes used more goal setting in competition ($3.30 \pm .85$) than in practice ($3.00 \pm .89$).

Within group ANOVA test of the goal setting in competition and practice TOPS scores serving as two dependent within-subjects variables, showed no main effects and no significant interaction between athletes’ reported use of goal setting in competition and their goal orientation.

However, in practice, a significant main effect ($F_{1,167} = 4.79, p < .05$, partial $\eta^2 = .03$) was found for the independent variable ego orientation. More specifically, athletes’ low in ego ($3.18 \pm .93$) used more goal setting in practice than athletes’ high in ego ($2.86 \pm .84$). No significant main effect was found for the independent variable task orientation and no significant interaction was shown.

Use of imagery in competition and practice
No significant difference was found when comparing athletes’ use of imagery in competition and practice.

Within group ANOVA test of the imagery in competition and practice TOPS scores serving as two dependent within-subjects variables, revealed no main effects and no significant interaction was found between athletes’ goal orientations and their use of imagery in competition.

In practice, no significant main effects were found. However, there is a tendency for a main effect on the variable ego orientation ($p < .06$). Further, a significant interaction effect ($F_{1,166} = 8.71, p < 0.01$, partial $\eta^2 = .05$) was found between athletes reported use of imagery in practice and their goal orientations. More specifically, results showed that athletes with a combination of low task and low ego (LT/LE; $M = 3.31$, SD = .75) used imagery more frequently in practice than those with low task and high ego (LT/HE; $M = 2.56$, SD = .83).

Use of relaxation in competition and practice
A significant difference was found between athletes’ use of relaxation in competition and practice ($F_{1,170} = 526.30, p < 0.001$, partial $\eta^2 = .76$). More specifically, athletes were found to use more relaxation in competition ($3.30 \pm .76$) than in practice ($1.77 \pm .71$).

Within group ANOVA test of the relaxation in competition and practice TOPS scores serving as two dependent within-subjects variables showed no significant main effects or interactions neither in competition nor in practice.

Use of self-talk in competition and practice
A significant difference was revealed between athletes use of self-talk in competition and practice ($F_{1,170} = 43.28, p < 0.001$, partial $\eta^2 = .20$). More specifically, athletes reported to use more self-talk in practice ($3.32 \pm .74$) than in competition ($3.06 \pm .87$).

Within group ANOVA test of the self-talk in competition and practice TOPS scores serving as two dependent within-subjects variables revealed no significant main effect for the independent variable task orientation in competition. However, a significant main effect was found for the independent variable ego orientation. More specifically, athletes’ low in ego ($3.23 \pm .83$) used more self-talk in competition than athletes’ high in ego ($2.92 \pm .88$). No significant interaction was found for the use of self-talk in competition.
In practice, results showed no significant main effect for the independent variable task orientation. A significant main effect was however found for the independent variable ego orientation. More specifically, athletes’ low in ego (3.45 ± .75) used more self-talk in practice than athletes’ high in ego (3.22 ± .72). Results showed no significant interaction.

**Relationship between goal orientations and use of psychological skills**

Results showed no main effects and no significant relationship between athletes’ goal orientation profiles and their use of all four psychological skills in competition.

In association with practice, no significant main effect was found for the independent variable task-orientation and the use of all four psychological skills. However, a significant main effect was found for the independent variable ego-orientation ($F_{1,166} = 4.18$, $p < 0.05$, partial $\eta^2 = .03$). More specifically, athletes’ low in ego (3.83 ± .67) used more psychological skills in association with practice than athletes’ high in ego (2.68 ± .60). Furthermore, a significant interaction effect was found between athletes’ goal orientations and their use of psychological skills in practice ($F_{1,166} = 4.86$, $p < 0.05$, partial $\eta^2 = .03$). More specifically, results revealed that athletes’ with a LT/LE combination (2.86 ± .71) used more psychological skills in practice than athletes’ with a LT/HE combination (2.32 ± .61).

**Discussion**

The present study examined young soccer players’ goal orientation profiles in relation to their use of psychological skills. More specific, the objectives were to investigate (1) the goal orientations of young Swedish soccer players, (2) their use of psychological skills in both practice and competition and (3) the relationship between their goal orientations and use of psychological skills. Harwood et al. (2004) claims that how a young athlete defines success and failure in achievement situations is related to the skills and strategies he or she regards as important to achieve success and feelings of competence. Therefore, this study further investigated this relationship in a specific target group in order to bring deeper understanding and enhance knowledge in this area.

**Summary of research findings**

Primary results from the present study regarding athletes’ goal orientations showed no significant difference between the task- and ego subscales. Furthermore, athletes’ reported a higher use of psychological skills in association with competition (3.21 ± .67) than practice (2.74 ± .63). In practice, no significant interactions were found but results showed a main effect for the variable ego orientation. More specifically, results showed that athletes low in ego reported a more frequent use of goal setting in practice than athletes’ high in ego. Goal setting was also more frequently used in competition than in practice.

A significant interaction was however found when examining the relationship between athletes’ use of imagery in practice and their goal orientation profiles. Athletes low in task and low in ego (LT/LE) reported to use more imagery in practice than those low in task and high in ego (LT/HE). However, athletes’ were found to use significantly more relaxation in competition than in practice. When investigating athletes’ use of self-talk, a significant main effect on the variable ego orientation was revealed in both competition and practice. More specifically, athletes low in ego used more self-talk than those high in ego in both competition and practice. Results further showed that self-talk was more frequently used in association with practice than with competition.
A significant interaction effect was found between the athletes’ goal orientations and their use of psychological skills in practice. More specifically, athletes’ with LT/LE profile used more psychological skills than athletes’ with a LT/HE profile.

**Athletes’ goal orientations**

The present study found no significant difference between athletes’ task and ego goal orientations. This is not consistent with previous research (Christensen, 2010; Cumming, et al., 2002; Harwood, et al., 2003; 2004, Hodge & Petlichkoff, 2000). All these studies found that athletes’ in general score higher on the task subscale than on the ego subscale. With reference to AGT, it is interesting to discuss why these results are usually found. According to AGT, an athlete that is mainly task-oriented is focused on learning, personal development and to achieve personal mastery. In contrary, an ego-oriented athlete is more focused on demonstrating superiority over others and uses normative criteria to define success and failure (Roberts, et al., 2007). An attitude of “being the best” might therefore be the main goal of action for an ego oriented athlete. However, an athlete with an ego orientation cannot always expect to win which can be a possible explanation why athletes’ usually score higher on task oriented items in the POSQ. Thus, ego oriented athletes might see the risks of defining success as being superior over others and therefore score low on ego oriented items. Moreover, another possible explanation is that being task-oriented is probably more socially accepted, especially in Scandinavia where success and achievement is perceived as negative and inappropriate. According to the Swedish “Jante Law” (NE, 2010), you should not believe that you are better than someone else or that you know more than others. This fact might have an influence over athletes’ tendency to score higher on the task-subscale in achievement goal orientation measures (i.e., POSQ, TEOSQ).

This study showed that there were no significant differences in athletes’ goal orientations, which is contradictory to previous research findings. Therefore, it is important to consider several factors. It was especially the athletes’ score on the task subscale (M= 3.40) that was lower than results found in previous studies. First, the sample was limited to only one sport which may have influenced the athletes’ score on the POSQ. A possible explanation could be that soccer players and other team sports participants are more driven by social goals (e.g., having fun, meeting friends) than task and ego goals. This could be a thinkable reason why the participants in this study scored lower on both subscales than athletes in general. According to Weiss and Ferrer-Caja (2002), social goals emphasize an individual’s desire to demonstrate maximal effort and thereby achieve social acceptance for these intentions. Further, Weiss and Ferrer-Caja (2002) holds that individuals that are driven by their desire to gain social approval for their actions will display high levels of effort. Second, another possible reason may be that most of the participants compete at a local level where athletes may be more driven by social goals. Task and ego goals might be more common among athletes that compete at a national or international level. Moreover, athletes competing at the very highest level (e.g., World Cup, Olympic Games) are probably more motivated by achieving personal mastery and winning. Therefore, the neglecting of social goals may be a possible explanation for the results obtained in this study. In conclusion, the classification of achievement goals in task and ego goals may be inadequate. This classification could result in that individuals that would score high on social goals instead score low on task and ego related goals.

**Athletes’ use of psychological skills**

When investigating the athletes use of psychological skills, the result revealed that they used more psychological skills in association with competition (3.21 ± .67) than in practice (2.74 ±
This finding is consistent with previous research (e.g. Frey, et al., 2003; Thomas, et al., 1999) and may be a result of several factors. One possible reason may be that athletes do not understand the connection between competition and practice and therefore fail to realize the importance of using psychological skills in association with practice. A possible explanation for that athletes fails to realize this connection could be that coaches consistently emphasizes the importance of competition over practice. If athletes does not view practice as important, they may not be willing to dedicate enough time and effort needed for using psychological skills in practice. Furthermore, results revealed that athletes used more goal setting and relaxation in competition than in practice. This result is not surprising since it is consistent with previous findings (e.g. Burton, et al., 1998; Harwood, et al., 2004) and a possible explanation may be the same as above, competition is regarded as more important than practice. Another reason may be that the use of goal setting and relaxation is more systematically implemented in association with competition than in practice. Previous research has found that goals must be used systematically and be implemented in a mental training program to be effective (Locke & Latham, 1990).

Moreover, coaches often find it difficult to make goals work effectively (Burton, et al. 1998). Therefore, it seems crucial that goal setting is a technique that must be systematically incorporated in athletes’ PST in order to increase effort and persistence and help athletes’ to be persistent in the face of failure. If coaches constantly emphasize competition over practice, this may have result in athletes poor knowledge in how to use goal setting and relaxation during their practice time. This might explain why goal setting and relaxation is more used in competition than practice. The result that relaxation in practice was the skill least used by athletes is also found in the study by Harwood et al. (2004) and may be an indication that athletes’ lack knowledge about the effectiveness of using relaxation techniques in practice. Since athletes were found to use more psychological skills in association with competition than practice it was surprising that self-talk was significantly more used in practice than in competition. This finding might show that self-talk unlike the other psychological skills is a more complex strategy and therefore require more time. The time needed to use self-talk effectively might not be available in a soccer game where a player must make very quick decisions.

Use of goal setting in competition and practice
Results from the present study showed that athletes’ low in ego used more goal setting in association with practice than athletes’ high in ego. A possible explanation might be that athletes’ high in ego does not view practice as important and therefore neglect the importance of using goal setting in a practice context.

Use of imagery in competition and practice
Athletes with a LT/LE profile was found to use more imagery in relation to practice than those with a LT/HE profile. A thinkable reason may be the same as above, athletes’ high in ego fails to see the connection between competition and practice and does not consider imagery as an important tool in practice.

Use of relaxation in competition and practice
The present study found no significant main effects or interactions when examining athletes’ goal orientations in relation to their use of relaxation in competition and practice. The fact that the sample in this study consisted of only a low number of elite athletes might explain why no significant differences were found. According to Vealey (2007), relaxation is a common strategy among successful elite athletes to manage their levels of stress and anxiety. Athletes
competing at a local or regional level might not experience the same pressure as high level elite athletes and may therefore not see relaxation as important to achieve success in athletic contexts.

**Use of self-talk in competition and practice**

Results from this study revealed that athletes’ low in ego used more self-talk in both competition and practice than athletes’ high in ego. This result is in line with results found by Harwood et al. (2004) and the reason might be that athletes’ high in ego is more focused on achieving success in relation to others. Therefore, these athletes may not consider self-talk as an important skill to achieve their goal (e.g., winning) in neither competition nor in practice.

**Relationship between goal orientations and use of psychological skills**

The present study found no main effects or relationships between athletes’ goal orientation profiles and their use of all four psychological skills in association with competition.

In practice, a significant main effect for ego was also found when investigating athletes’ use of all four psychological skills. More specifically, athletes low in ego used more psychological skills in practice than athletes high in ego. The present study also found an interaction effect that revealed that athletes with a LT/LE profile used psychological skills more frequently in practice than athletes with a LT/HE profile.

Based on these results, the variable ego seems to be the controlling factor determining athletes’ goal orientations. Therefore, it could be argued that ego is the factor that determines how frequently the athletes use PST. That is, ego is the factor that separates the LT/LE group from the LT/HE group. This can further be explained by the fact that no significant differences were found between HT/LE and LT/LE where the athletes’ task orientation is the separating factor between these groups.

Another possible explanation why LT/LE used more PST in practice than LT/HE can be that the participants could be driven by other goals that are not measured by the POSQ, for example social goals. That is, athletes that would have scored high on social goals instead scores low on both subscales and are therefore labeled with LT/LE orientation. However, these results should be interpreted carefully due to low effect sizes.

**Methodological reflections**

**Measuring athletes’ goal orientations**

The present study used the POSQ questionnaire to measure athletes’ goal orientations. Results of this study confirmed the acceptable reliability of this instrument. The completion of the questionnaire ranged from four to eight minutes. Contrary to previous studies (e.g., Christensen, 2010; Harwood, et al., 2004), the present study found no significant differences in athletes’ goal orientations. The scores on the task and ego scores in this study were also lower than in the studies mentioned above. This might be an indication that the POSQ is not sufficient enough to use on soccer players. However, other results might have been obtained with a larger sample.

Since cluster analysis was not used, this might have resulted in a skewed distribution of the athletes’ into the goal profile groups. The skewed distribution could probably be the reason why only two groups (LT/LE vs. LT/HE) showed significant differences in the use of psychological skills. Other results might therefore have been found using cluster analysis. If goal profile groups had been created using cluster analysis, different solutions could have been examined and the solution that best fitted the data could have been chosen.
Measuring athletes’ use of psychological skills

The present study administered the TOPS questionnaire to meet the objective of measuring athletes’ use of psychological skills. This instrument has been shown in previous studies to have acceptable reliability and validity (Thomas, et al., 1999; Harwood, et al., 2004). A pilot study was conducted in order to find out if the Swedish translation needed modifications. Analyses showed that some items needed to be deleted in order to achieve acceptable reliability. Even if poor alpha values were achieved in the pilot study, TOPS was thought to be well-suited to measure athletes’ use of psychological skills since item deletions resulted in better alpha values. However, since previous studies acquired acceptable values on the goal setting in practice and relaxation in competition, it seems that some items might have been misinterpreted by the participants. This problem could probably been solved if the researchers of this study would have been present during the data collection. Thus, the researchers could have answered questions regarding items in the TOPS and clarify any concerns. However, actions were taken by the researchers to minimize the risk of misinterpretations. The teachers received an instructional letter containing important information on how to answer the survey (e.g., the possibility to contact the researchers). Therefore, the results of the present study has provided important knowledge in this area.

Reliability and ethical issues

The reliability of the present study in terms of internal consistency was shown to be acceptable for the POSQ subscales task (α = .95) and ego (α = .94). Results of data acquired in the pilot study showed acceptable reliability on all subscales of the TOPS except goal setting in practice (α = .49) and relaxation in competition (α = .19). Item 58 was deleted from the goal setting in practice subscale and improved the alpha value in the original study (α = .79). In the original study, results showed acceptable alpha values for all subscales except for relaxation in competition (α = .35). After deleting item 43, the alpha value on relaxation improved (α = .71). However, as no test-retest was performed, there are some limitations of the reliability of this study. Furthermore, the generalization of the results of this study might be limited due to a small and unvaried sample of participants. Subject biases (Mitchell & Jolley, 2010) like social desirability and obeying demand characteristics might have affected the results of the present study. Thus, the risk that participants change their answers to what is thought to be socially acceptable or to impress the researchers needs to be taken into consideration.

The present study followed the ethical issues recommended by the American Psychological Association (2010). More specifically, participants were informed of the purpose and procedure of the study. They also received information regarding their rights, such as: voluntary participation, confidentiality and the right to abort participation at any time. If they agreed to participate in the study, the participant signed a written consent form. Moreover, the participants were told that there were no right or wrong answers, and the importance of answering honestly.

Practical implications

This study is the first that has examined the relationship between young soccer players’ goal orientation profiles and their use of psychological skills. The results should be of interest for practitioners such as coaches, sport psychology consultants and active athletes. In reference to athletes’ goal orientations, a combination of high task and high ego has proven in previous research (Roberts, et al., 1996) to be preferable for athletes to achieve peak performances in their athletic careers. Therefore, practitioners must be aware that high ego orientations should not be depressed as long as they are combined with a high task orientation. Results of this
study showed that athletes’ used more psychological skills in association with competition than with practice. However, the link between competition and practice should not be forgotten. Thus, in order to maximize athletes’ performances, practitioners should emphasize the importance of using PST in relation to practice. This statement is supported by Frey et al. (2003) that holds that practice is a vital part of an athlete’s life were the athlete learns the skills necessary for the sport and these must be rehearsed in order to improve performance in competition. Moreover, since self-talk has been shown to increase athletes’ self-confidence (e.g., Thelwell & Greenlees, 2003), skill acquisition and performance (Hardy, Gammage & Hall, 2001; Johnson, et al., 2004) and decrease cognitive anxiety (Hatzigeorgiadis, et al., 2009), it seems that self-talk can be beneficial for athletes in both competition and practice. If athletes acquire more knowledge on how to use self-talk it might lead to a more frequent use of self-talk in competition.

Finally, when educating soccer coaches, the importance of using psychological skills in relation to practice must not be forgotten. If coaches has a deeper knowledge regarding how athletes can benefit from using psychological skills in practice, coaches may be more motivated to help the athletes understand the connection between competition and practice.

**Directions for future research**

Consistent with previous research (Frey, et al., 2003; Thomas, et al., 1999), the present study found that athletes used more psychological skills in association with competition than with practice. Since most of the previous research has investigated the use of psychological skills in relation to competition, further research should focus more on using psychological skills in relation to practice. Future studies should also devote more attention on the effectiveness of using psychological skills during practice since it could be argued that practice is an important part of an athlete’s life. Both the present study and Harwood et al. (2004) found that relaxation in practice was the least used skill. Thus, future research should further examine the use of relaxation in order to understand how this skill can enhance athletes’ performances.

Considering that evidence in research support the fact that the use of psychological skills can enhance athletes’ performance (Greenspan & Feltz, 1989) more research is probably needed to examine the relationship between athletes’ goal orientations and their use of psychological skills. This would be of interest because more knowledge about this relationship would be valuable to coaches, athletes, sport psychology consultants and those educating sport psychology consultants. This knowledge might be useful when assisting athletes with maladaptive behaviors that possibly could be at risk for dropping out of their sport. Only one study (Harwood, et al., 2004) has been found that investigates the relationship between all of the four most common psychological skills (imagery, goal setting, self-talk and relaxation) and athletes’ individual goal orientations. Although Harwood and colleagues found such a relationship, they conclude that their study provided only a snapshot of the relationship between athletes’ achievement motivation and the use of psychological skills. This study also provided only a snapshot of this relationship. It therefore appears that more research investigating this relationship is needed using quantitative as well as qualitative methods. This is important in order to fully understand the motivational mechanism that undergirds the achievement motivation/psychological relationship.

Quantitative studies using questionnaires are needed in order to find interesting results that can be generalized to a larger population. Qualitative studies using for example in-depth interviews are needed to more fully understand how athletes’ goal orientations can affect their use of psychological skills. Further research investigating this relationship would certainly be beneficial for coaches, athletes and others involved in sport. Harwood and colleagues (2004)
could not determine in their study if a particular goal orientation profile was naturally related to reported use of psychological skills. This would therefore be a challenge for future studies to investigate.

Previous research investigating athletes’ achievement motivation has mainly focused on non-elite athletes (Harwood, et al, 2004). Therefore, it seems crucial that more research investigating high-level athletes is needed to bridge this gap in our knowledge. Another topic of interest for future research would be to investigate the interaction between goal orientations and perceived ability in the physical domain. Only a few studies have considered this interaction (Weiss & Ferrer-Caja, 2002). Other issues according to Weiss & Ferrer-Caja (2002) that needs to be examined further is the interaction between goal orientations and perceived competence and the interaction between goal orientations and perceived ability. Future research should therefore focus more attention on further validation of existing questionnaires and the development of new questionnaires that measures this interaction. These interactions needs more research to get a deeper understanding of cognitive, affective and behavioral outcomes in the physical domain. A big challenge to the central tenets and underlying assumptions of AGT has been Elliot’s (1999) hierarchical model of achievement goals. Since not enough research has been conducted on this model (Roberts, et al, 2007) it seems crucial that further research is needed to demonstrate its credibility and potential to get a deeper understanding of athletes’ motivation behavior in sports.

Urdan and Maehr (1995) highlight the fact that most research on achievement motivation has focused on task and ego goals and argue for further research examining social goals. No published studies in sport and activity contexts have examined social goals within an AGT perspective (Weiss & Ferrer-Caja, 2002) Therefore, social goals seem to deserve more attention since they probably can explain a big part of athletes’ achievement behavior. Because questionnaires like TOPS only measures the frequency of athletes use of psychological skills, future studies should use questionnaires that also measures why athletes uses psychological skills. This is necessary to get a broader knowledge of the different purposes that athletes engage in PST. Finally, future research should perform more experimental studies in order to reveal the cause-effect relationship between athletes’ goal orientation profiles and their use of psychological skills.
References


Kinetics.


List of appendixes

Appendix A: Test of Performance Strategies, English version.
Appendix B: Test of Performance Strategies, Swedish version.
Appendix C: Information and written consent form for responsible teacher and principal.
Appendix D: Instruction letter to responsible teacher.
Appendix E: Information and written consent form for student-athletes.
Directions: Each of the following items describes a specific situation that you may have encountered in your training and competition. **Think back to the prime of your career**, read each statement, and circle the appropriate number to the right of the statement to indicate how you usually felt.

1. I set realistic but challenging goals for practice. ..................................................1
   Never  Rarely  Sometimes  Often  Always
   2  3  4  5
2. I say things to myself to help my practice performance. ..................................1
   Never  Rarely  Sometimes  Often  Always
   2  3  4  5
3. During practice, I visualize successful past performances. ..............................1
   Never  Rarely  Sometimes  Often  Always
   2  3  4  5
4. My attention wanders while I am training .............................................................1
   Never  Rarely  Sometimes  Often  Always
   2  3  4  5
5. I practice using relaxation techniques at workouts. ..........................................1
   Never  Rarely  Sometimes  Often  Always
   2  3  4  5
6. I practice a way to relax .......................................................................................1
   Never  Rarely  Sometimes  Often  Always
   2  3  4  5
7. During competition, I set specific result goals for myself. ................................1
   Never  Rarely  Sometimes  Often  Always
   2  3  4  5
8. When the pressure is on at competitions, I know how to relax. .........................1
   Never  Rarely  Sometimes  Often  Always
   2  3  4  5
9. My self-talk during competition is negative .......................................................1
   Never  Rarely  Sometimes  Often  Always
   2  3  4  5
10. During practice, I don't think about performing much –
    I just let it happen ................................................................................................1
    Never  Rarely  Sometimes  Often  Always
    2  3  4  5
11. I perform at competitions without consciously thinking about it. .................1
    Never  Rarely  Sometimes  Often  Always
    2  3  4  5
12. I rehearse my performance in my mind before practice ...............................1
    Never  Rarely  Sometimes  Often  Always
    2  3  4  5
13. I can raise my energy level at competitions when necessary ......................1
    Never  Rarely  Sometimes  Often  Always
    2  3  4  5
14. During competition, I have thoughts of failure ..............................................1
    Never  Rarely  Sometimes  Often  Always
    2  3  4  5
15. I use practice time to work on my relaxation technique ............................1
    Never  Rarely  Sometimes  Often  Always
    2  3  4  5
16. I manage my self-talk effectively during practice .........................................1
    Never  Rarely  Sometimes  Often  Always
    2  3  4  5
17. I am able to relax if I get too nervous at a competition ..................................1
    Never  Rarely  Sometimes  Often  Always
    2  3  4  5
18. I visualize my competition going exactly the way I want it to go ...............1
    Never  Rarely  Sometimes  Often  Always
    2  3  4  5
Appendix A

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>19.</td>
<td>I am able to control distracting thoughts when I am training.</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>20.</td>
<td>I get frustrated and emotionally upset when practice does not go well.</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>21.</td>
<td>I have specific cue words or phrases that I say to myself to help my performance during competition.</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>22.</td>
<td>I evaluate whether I achieve MY competition goals.</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>23.</td>
<td>During practice, MY movements and skills just seem to flow naturally from one to another.</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>24.</td>
<td>When I make a mistake in competition, I have trouble getting my concentration back on track.</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>25.</td>
<td>When I need to, I can relax myself at competitions to get ready to perform.</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>26.</td>
<td>I set very specific goals for competition.</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>27.</td>
<td>I relax myself at practice to get ready.</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>28.</td>
<td>I psych myself up at competitions to get ready to perform.</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>29.</td>
<td>At practice, I can allow the whole skill or movement to happen naturally without concentrating on each part of the skill.</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>30.</td>
<td>During competition, I perform on 'automatic pilot'.</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>31.</td>
<td>When something upsets me during a competition, my performance suffers.</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>32.</td>
<td>I keep my thoughts positive during competitions.</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>33.</td>
<td>I say things to myself to help my competitive performance.</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>34.</td>
<td>At competitions, I rehearse the feel of my performance in my imagination.</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
Appendix A

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>35. I practice a way to energize myself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>36. I manage my self-talk effectively during competition.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>37. I set goals to help me use practice time effectively.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>38. I have trouble energizing myself if I feel sluggish during practice.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>39. When things are going poorly in practice, I stay in control of myself emotionally.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>40. I do what needs to be done to get psyched up for competitions.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>41. During competition, I don't think about performing much - I just let it happen.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>42. At practice, when I visualize my performance, I imagine what it will feel like.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>43. I find it difficult to relax when I am too tense at competitions.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>44. I have difficulty increasing my energy level during workouts.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>45. During practice, I focus my attention effectively.</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<td>5</td>
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<tr>
<td>46. I set personal performance goals for a competition.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>47. I motivate myself to train through positive self-talk.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>48. During practice, sessions I just seem to be in a flow.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>49. I practice energizing myself during training sessions.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>50. I have trouble maintaining my concentration during long practices.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>51. I talk positively to myself to get the most out of practice.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>52. I can increase my energy to just the right level for competitions.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>53. I have very specific goals for practice.</td>
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<td>2</td>
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<tr>
<td><strong>54.</strong></td>
<td>During competition, I play/perform instinctively with little conscious effort.</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td><strong>55.</strong></td>
<td>I imagine my competitive routine before I do it at a competition.</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td><strong>56.</strong></td>
<td>I imagine screwing up during a competition.</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td><strong>57.</strong></td>
<td>I talk positively to myself to get the most out of competitions.</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td><strong>58.</strong></td>
<td>I don't set goals for practices, I just go out and do it.</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td><strong>59.</strong></td>
<td>I rehearse my performance in my mind and at competitions.</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td><strong>60.</strong></td>
<td>I have trouble controlling my emotions when things are not going well at practice.</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td><strong>61.</strong></td>
<td>When I perform poorly in practice, I lose my focus.</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td><strong>62.</strong></td>
<td>My emotions keep me from performing my best at competitions.</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td><strong>63.</strong></td>
<td>My emotions get out of control under the pressure of competition.</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td><strong>64.</strong></td>
<td>At practice, when I visualize my performance, I imagine watching myself as if on a video replay.</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
### Test av strategier för att uppnå framgång (TOPS)

**P. Thomas, S. Murphy, & L. Hardy (1999)**

Översatt och bearbetat av Erik Madsen & Simon Roness: Sektionen för Hälsa och Samhälle (HOS), Högskolan i Halmstad. © 2010.

**Instruktioner:** Varje påstående beskriver en specifik situation som du troligen stött på i träning eller tävling. Läs **noggrant** varje påstående och sätt en cirkel runt den siffra som bäst motsvarar hur du oftast känner.

<table>
<thead>
<tr>
<th></th>
<th>Aldrig</th>
<th>Sällan</th>
<th>Ibland</th>
<th>Ofta</th>
<th>Alltid</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Jag sätter realistiska men utmanande mål för min träning.</td>
<td></td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. Jag säger saker till mig själv för att förbättra min prestation under träning.</td>
<td></td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. Under träning, föreställer jag mig framgångsrika prestationer som jag utfört tidigare.</td>
<td></td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. Jag tappar fokus på uppgiften när jag träna.</td>
<td></td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. Jag använder avslappningsövningar under träning.</td>
<td></td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. Jag träna avslappning.</td>
<td></td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. Under tävling sätter jag specifika resultatmål för mig själv (Ex. vinna matchen).</td>
<td></td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. I pressade tävlingssituationer vet jag hur jag ska slappna av.</td>
<td></td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. Jag har negativa tankar under tävling.</td>
<td></td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10. Jag går igenom min prestation i tankarna före träning.</td>
<td></td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11. Jag kan mental öka min energinivå under tävling när det behövs.</td>
<td></td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>12. Under tävling, har jag tankar på misslyckanden.</td>
<td></td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>13. Jag använder tid på träning för att förbättra min avslappningsförmåga.</td>
<td></td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>14. Jag kan kontrollera mina tankar effektivt under träning.</td>
<td></td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>15. Jag kan kontrollera min anspänning om jag blir för nervös under tävling.</td>
<td></td>
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<tr>
<td>16. Innan tävling föreställer jag mig att det kommer gå exakt som jag vill.</td>
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<td>17. Om det går dåligt på träning blir jag frustrerad och upprörd.</td>
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<tr>
<td>18. Jag använder mig av speciella “nyckelord” eller meningar som jag säger till mig själv för att förbättra min prestation under tävling.</td>
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<td>3</td>
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</tbody>
</table>
19. Efter tävlingen utvärderar jag om jag har uppnått MINA mål. |
| | | | | |
| Aldrig | Sällan | Ibland | Ofta | Alltid |
| | | | | |
20. Under träning känns det som allt jag gör går automatiskt. |
| | | | | |
21. När jag gör misstag under tävling har jag svårt att återfå min koncentration på uppgiften. |
| | | | | |
22. För att vara redo att presterar under tävling, kan jag slappna av om det är nödvändigt. |
| | | | | |
23. Jag sätter detaljerade mål för tävling. |
| | | | | |
24. För att förbereda mig inför träning brukar jag använda avslappning. |
| | | | | |
| | | | | |
| | | | | |
27. Vid tävling sker min prestation helt automatiskt. |
| | | | | |
28. När jag under en tävling blir upprörd/arg över någonting påverkas min prestation negativt. |
| | | | | |
29. Under tävling håller jag mina tankar positiva. |
| | | | | |
30. Jag sätter saker till mig själv för att förbättra min prestation under tävling. |
| | | | | |
31. Vid tävling går jag, i min fantasi, igenom min prestation. |
| | | | | |
32. Jag övar på strategier för att känna mig kraftfull/full av energi. |
| | | | | |
33. Jag kan hantera mina tankar på ett effektivt sätt under tävling. |
| | | | | |
34. Jag sätter mål för att effektivt kunna använda min träningstid. |
| | | | | |
35. Jag kan kontrollera mina känslor även när det går dåligt på träning. |
| | | | | |
36. Jag gör det som behöver göras för att ladda mentalt inför tävlingar. |
| | | | | |
37. Under tävling tänker jag inte så mycket på själva prestationen – jag låter det bara hända. |
| | | | | |
38. Jag går igenom min prestation mentalt på träning så som jag tror den kommer att gå till. |
| | | | | |
39. När jag är för spänd under tävling tycker jag att det är svårt att slappna av. |
| | | | | |
40. Under träning fokuserar jag min uppmärksamhet på rätt saker. |
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<tbody>
<tr>
<td>41. Jag sätter personliga prestation mål för tävlingar (Ex. jag gör mitt bästa)</td>
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<td>42. Jag ökar min motivation till att träna genom att ha positiva tankar</td>
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<td>43. Under träning känns det som att allt bara flyter på</td>
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<td>44. Jag övar på att ”peppa upp” mig själv under träning</td>
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<td>45. Jag säger positiva saker till mig själv för att få ut så mycket som möjligt av träningen</td>
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<td>46. Jag kan ”peppa upp” mig till önskad nivå vid tävling</td>
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<td>47. Jag sätter detaljerade mål för träning</td>
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<td>48. Jag går igenom olika tävlingsmoment mentalt innan jag genomför dem på tävling</td>
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<td>49. När jag föreställer mig min prestation under tävling ser jag mig själv misslyckas</td>
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<td>50. Jag pratar positivt till mig själv för att få ut maximalt under tävlingar</td>
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<td>51. Jag går igenom mina tidigare prestationer i min fantasi</td>
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<td>52. Jag har svårt att kontrollera mina känslor när det inte går bra på träning</td>
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<td>53. När jag presterar dåligt på träning försämras mitt fokus på uppgiften</td>
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<td>54. Mina känslor hindrar mig att prestera maximalt på tävlingar</td>
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<td>55. Jag har svårt att kontrollera mina känslor i pressade tävlingssituationer</td>
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<td>56. När jag föreställer mig min prestation på träning är det som att se mig själv på film</td>
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</table>

_Tack för din medverkan!_
Informationsbrev och förfrågan till ansvarig lärare och rektor i idrottsprogrammet/–profilen angående elevers medverkan i en enkätstudie med syfte att undersöka elevernas motivationsorientering och användandet av psykologiska strategier i idrott.

Hej!


För att kunna uppfylla studiens syfte skulle vi vilja att dina elever besvarar följande formulär: Upplevelsen av framgång (POSQ; Roberts, Treasure, & Balague, 1998) och Test av strategier för att uppnå framgång (TOPS; Thomas, Mur phy, & Hardy, 1999).

Det finns inga rätt eller fel svar på frågorna i enkäterna. Enkäterna besvaras individuellt. Elevernas deltagande i studien är frivillig och de kan när som helst, utan att ange orsak avbryta sin medverkan! Elevernas svar kommer att analyseras på gruppnivå och därmed kommer de att förbli anonyma. Önskas ytterligare information är ni välkomna att kontakta oss eller vår handledare.

Kontaktperson
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Erik Madsen
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Tele: 0735 332582

Student
Simon Roness
Mail: simron08@student.hh.se
Tele: 0702 414522

Handledare
Lucia Christensen
Mail: lucia.christensen@hh.se
Tele: 035 167939

Informert Samtycke
Jag har informerats om studiens syfte, om hur information samlas in, bearbetas och publiceras. Jag har dessutom fått tillfälle att ställa frågor, samt fått dem besvarade. Jag är även medveten om att elevernas deltagande är frivilligt och att de når som helst kan avbryta deltagandet utan att ange orsak.

Jag samtycker härmed till att mina elever medverkar i en enkätstudie angående motivationsorientering och användandet av psykologiska strategier i idrott.

Datum:______/_____ 2010

Rektor Ansvarig lärare
Namnteckning:________________________ Namnteckning:_______________________

Namnförtydligande:________________________ Namnförtydligande:________________________
Hej! Eftersom det är ett flertal gymnasieskolor som deltar i vår studie ber vi er vänligen att följa nedanstående instruktioner så att förutsättningarna för alla våra deltagare är samma och att det därmed inte kan påverka resultatet på något vis.

Bifogat i kuvertet finner ni:

- Informationsbrev till ansvarig lärare och rektor (skall skrivas under).
- Enkäter
- Förfrankat returkuvert.

Inför elevernas besvarande är det mycket viktigt att:

- Ansvarig lärare samt rektor skall skriva under blanketten ”informerat samtycke”.
- Eleverna besvarar enkätorna i ett klassrum under ordnande former på lektionstid.
- Varje elev besvarar enkäten Individuellt!
- Enkätens första sida skall läsas noggrant av eleverna och skall skrivas under.
- När varje elev har skrivit under att de vill deltaga i studien Skall första sidan rivas bort!
- Eleverna besvarar sedan enkäten enligt varje dels (a,b,c) instruktioner.
- När eleven har besvarat enkäten lämnas Både försättsblad och enkäten in till ansvarig lärare.
- Om det råder oklarheter på någon eller några frågor hos eleverna får ni gärna ringa till oss så att vi kan reda ut eventuella missuppfattningar.

Vi vill även be er att låta era elever besvara enkäten så fort som möjligt samt skicka tillbaka enkätorna till oss samma dag som de besvarats av eleverna, dock senast 8/12. Detta eftersom vi har en deadline som närmar sig med stormsteg!

Har ni några frågor är ni välkomna att kontakta oss eller vår handledare.

Med vänliga hälsningar

<table>
<thead>
<tr>
<th>Kontaktperson</th>
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<tbody>
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Det finns **inga rätt eller fel** svar på frågorna i enkätorna. Svara därför så ärligt som möjligt på frågorna! Enkätorna besvaras **individuellt**.

Studien är **frivillig** och du kan när som helst, utan att ange orsak avbryta din medverkan!

Dina svar kommer att analyseras på gruppnivå och därmed kommer du att förbli anonym.

**Med vänliga hälsningar**

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Datum:_____/_____ 2010

Namnteckning:________________________________________

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