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The Effect of Coach Expectations on Athletes' Motivation to Practice

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THE EFFECT OF COACH EXPECTATIONS ON ATHLETES' MOTIVATION TO PRACTICE

By

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This Thesis is dedicated to my husband, Shaun Buning, for his ability to see the importance of continuing my education, to my parents, Chuck and Brenda Langston, for not allowing me to quit, and to my late Grandad Smith who always encouraged me to pursue greatness. Thank you all for encouraging me and lifting me up when I wanted to fall. Without you, none of this would be possible.

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ABSTRACT

The purpose of this thesis was to examine the self-fulfilling prophecy relative to the possible effects that an expectancy placed on a player by a coach can have on that athlete's motivation to continue practicing their sport. Male and female softball coaches (n = 8) over the age of 18, and female softball athletes (n = 85) between the ages of 12 and 17 years old participated in this study. Coaches completed the Coach Questionnaire which was developed by the researcher. Athletes completed the Sport Motivation Scale (SMS), the Physical Self-Perception Profile sport competency section (PSPP), and the Coaching Behavior Assessment System Perceived Behavior Scale (CBAS-PBS). Athletes were assigned colored wristbands in an attempt to manipulate coaches' expectations. Athletes were labeled as either "low expectancy" or "high expectancy" athletes by the coaches, and were used for comparison throughout the study.

Once the coaches' pre-existing beliefs were controlled for, the coaches did not form expectations based on athletes' wristband colors. Both high and low expectancy athletes increased in perceived sport competence from the beginning of camp to the end, regardless of group membership. Neither group showed a significant increase in intrinsic motivation levels, however, there were slight increases in certain types of extrinsic motivation throughout the course of the study. There was a significant, yet small, positive correlation between motivation to experience stimulation (intrinsic), and introjected regulation (extrinsic) initially and perceived sport competence. Coaching behaviors, such as, keeping control, encouragement after mistakes, giving instructions, general communication were perceived similarly by both groups, and also to a greater degree by the end of camp. Rewarding behaviors and corrective instruction by the coaches were perceived by high expectancy athletes to occur more often than low expectancy athletes from beginning to the end of camp.

INTRODUCTION

Participation in organized sports activities in the United States has grown tremendously over the years. During the beginning of the twentieth century, agencies started sponsoring sports, as well as other recreational activities, to provide honest, leisure activities with the idea of keeping adolescents away from harm and mischief (Berryman, 1996). Schools began sponsoring intramural sports in hopes of teaching sports skills, and providing the opportunity to participate in monitored, competitive activities. There are still many organizations and agencies that disagree on the benefits and the objectives of sport programs. However, the idea that sports provide children with clean-living, character-building activities to occupy free time which aid in the transition from childhood to adulthood has become a widely accepted view.

Many critics of organized competitive sport, however, believe that children should not participate in competitive settings at any point (Cronin & Mandich, 2005). One concern is that the pressure to win is too severe. Critics focus upon parents and coaches who put too much emphasis on winning and not enough focus on learning skills and enjoying the game. Having a child participate in sports in an environment where winning is the sole focus can make the sport not enjoyable for the child. Past experiences that are deemed not enjoyable by the participant can lead to future choices to discontinue participation (Cronin & Mandich, 2005).

Past experiences and enjoyment level of sport participation both contribute to the level of motivation to continue practicing a sport or skill (Cronin & Mandich, 2005). A player who has had previous enjoyable experiences while practicing a particular sport or skill, or playing in a competitive game, is more likely to have a higher level of intrinsic motivation to play or practice the sport or skill in the future. A player having bad memories of sport participation is more likely to show lower levels of motivation to continue sport participation. Orlick and Botterill (1975) conducted interviews on 60 male athletes who had experience in a competitive cross-country skiing, hockey, soccer, baseball, basketball, or swimming team to find out reasons for termination. They concluded that 67% of the boys stopped participation due to sport related reasons, and further analysis of responses allowed the authors to categorize the main reasons for termination. Of the 67% who dropped out, 50% t blamed the program (e.g., too serious, too much emphasis on winning, experienced a sense of failure, while 17% blamed the coach (e.g., they criticized too much, they were not fair toward everyone, they never let me play).

Similar findings were reported in another qualitative study by Seefeldt, Ewing, and Walk (1992, as cited in Hedtrom & Gould, 2004). The top four reasons for termination of sport participation among the youth sport athletes interviewed in this study were: (1) lack of interest in the sport, (2) lack of fun, (3) the coach played favorites or was a poor teacher, and (4) desire to participate in other activities.

Lists for reasons of athletic drop out were generated in both the Orlick and Botterill (1975), and Seefeldt et al (1992) studies. Disagreement with coaching behaviors was among the top five reasons for termination of participation in both studies. Poor coaching was described as playing a role in decreased motivation to continue the sport among athletes in both studies. Motivation to continue a sport needs to be addressed, specifically concerning the role of the coach in decreasing motivational levels.

Some athletes use sports in their younger years to develop athletic talent for the future. The sporting environment leaves the young athlete open to public social evaluation of his or her ability (Scanlan & Passer, 1979). Young athletes perceive social evaluations from people they deem as important figures in their lives. Many athletes name their coach as one of these

important figures, along with parents, teammates, and opponents (Snyder, 1972). The coach can affect how much a player enjoys the sport, lasting memories of sport participation, and preparation of the athlete to continue competition (Smith, Smoll, & Barnett, 1995). The coach-athlete relationship is a very important aspect of a successful athletic career (Schinke & Tabakman, 2001). The coach can play an important role in a young athlete's life, and have a positive or negative impact on an athletic career.

Positive coach-athlete relationships are typically characterized by personal feelings of trust, respect, appreciation, commitment, and behaviors of cooperation that are mutually connected (Short & Short, 2005). The main responsibility of coaches, especially for older athletes, is to help their athletes reach a level of performance that otherwise would be difficult to attain. The behaviors the coach exhibits toward an athlete can have lasting effects for future involvement in sport. Smith, Smoll, and Curtis (1979) found that coaching behaviors can affect player perception of the coach's ability to teach skills, player self-esteem level pre- to post-season, and enjoyment level of sport participation. Furthermore, they showed that coaches tend to lack full awareness of their behaviors towards their athletes. Smith et al. (1979) have also shown that the players' perceptions of the coaches' behaviors were actually more accurate than the coaches' perceptions of their own behavior. If coaches are not aware of their own behaviors, then they are unable to critique and correct themselves. One area of the sports domain that needs to be brought to the attention of coaches and parents is coaching behaviors toward players that coaches hold expectations about playing ability.

The idea that a coach can influence players' ultimate performance outcomes have been debated (Horn, 1984). Coach expectancies, termed a self-fulfilling prophecy (SFP) play a role in determining the outcome of a player's performance. Most research on the self-fulfilling prophecy has been carried out in educational settings, but not in the sports setting. Research on the self-fulfilling prophecy, i.e., how players are affected by coach expectations is of importance for the sporting environment because the self-fulfilling prophecy can result in a negative outcome for certain players, such as a loss of motivation to play a sport. The study of different coach expectancies and behaviors toward athletes is important in that it explores how coaches' expectancy behaviors affect athletes' motivation to practice or play their sport. This is the main goal of this study.

CHAPTER 1

REVIEW OF THE LITERATURE

The Self-Fulfilling Prophecy

The term "self-fulfilling prophecy" was coined by Robert K. Merton in 1948. Merton proposed that a false, but widely believed prediction or expectation, could come true simply because enough people believed in the idea. Since Merton's work, the idea of a self-fulfilling prophecy (SFP) has had the greatest influence in the field of education, although it is an idea that has not been without controversy. Many studies have found evidence that teacher expectations of their students can be powerful predictors of student performance during classroom instruction (Brophy & Good, 1974; Clark, 1963; Goldberg, 1963; Merton, 1948; Rosenthal & Jacobson, 1968). The idea that the expectation that a teacher holds of a student can affect his/her performance over the course of a school term can be unsettling. Rosenthal and Jacobson (1968) were among the first to demonstrate experimentally, however, that simple manipulations of teachers' expectancies could improve student achievement. They coined this special case of the self-fulfilling prophecy in the classroom, the "Pygmalion effect". Since Rosenthal and Jacobson (1968) first reported their results, there has been much controversy over the true nature of their study. Many have found fault in the magnitude of the Pygmalion effect and possible methodological flaws of the study (Eden, 1984). However, Rosenthal and Rubin (1978 as cited in Miller &Turnbull, 1986) concluded that after fifteen years of research, teacher expectancy effect was noted in almost two-thirds or the 345 studies conducted.

The SFP can be conceptualized as occurring in a four-stage process (Horn, Lox, & Labrador, 1998). During the first stage, the coach develops an expectation based upon available evidence. The coach predicts a level of performance and a type of behavior that particular athlete will display over the course of the playing season. The second stage involves the coach's behavior toward certain athletes. Each behavior is different based on the expectancy the coach has formed for each player. In the third stage, the coach's behavior affects the athlete's performance and rate of learning. These behaviors indicate how competent the coach believes the player is at the sport. This information then affects the athlete's self-concept, achievement motivation, and level of ambition. Stage four consists of the athlete's behavior and performance aimed at meeting the coach's expectation. Such conformity confirms to the coach that the original expectation was correct, and the SFP begins again as a process that continues in a cycle.

As a result of the many studies conducted on teacher expectancies in the educational setting, evidence has been provided that teacher expectations regarding perceptions of students' ability do in fact affect how students perceive their own ability. All of these findings come from experimental settings (Jussim, Soffin, Brown, Ley, & Kohlhepp, 1992). Naturalistic studies have also shown teacher expectations affect their students' self-concept (Parsons, Kaczala, & Meece, 1982; Vallerand, Fortier, & Gray, 1997), and students' self-perceptions of performance (Brattesani, Weinstein, & Marshall, 1984) in areas such as students' beliefs about their math abilities (Madon, 2001; Palardy, 1969; Seaver, 1973). However, research has also shown that teachers base expectations on the best evidence they have in possession (i.e. test scores) (Shavelson, Cadwell, & Izu, 1977), and that most teachers are willing to change their initial expectancies when more extensive evidence is presented to them.

Although most support for the self-fulfilling prophecy comes from academic settings, there are studies that have shown support for SFP in other settings. King (1971 as cited in Miller & Turnbull, 1986) showed that self-fulfilling prophecy was evident with instructors' expectations of students in a vocational training program. Eden and Shani (1982) and Eden and Ravid (1982) showed that the SFP also exist within the military. In both of Eden's studies, military instructor expectancies were manipulated on military trainees. High expectancy trainees performed better on objective achievement tests than did their low-expectancy counterparts. Martinek (1981) even tested the expectancy effects associated with physical attractiveness on teachers of elementary age children, and found that physical attractiveness showed a strong correlation with teacher expectations about individual child academic performance. It is important to note that most of the studies that have shown support for the self-fulfilling prophecy have been under the creation of false expectations (Trouilloud, Philippe, Martinek, & Guillet, 2002). Attempts to conduct naturalistic studies on the self-fulfilling prophecy often failed to show support (Brophy, 1983; Meyer, 1985; Raudenbush, 1984; West and Anderson, 1976).

While studies on the SFP have extended beyond education, there has been comparably little research on the self-fulfilling prophecy in physical activity settings. Partial support for the SFP has been shown when physical education teacher expectations early in the school year predicted student ability and self-concept later in the year (Trouilloud, Philippe, Martinek, & Guillet, 2002).

In the sport domain, the SFP research suggests coaches' expectations are grounded in numerous factors including age and ability. Expectations are conveyed to the athletes through both verbal and non-verbal behaviors. If coaches consistently convey their expectations throughout a time period, and the athlete correctly perceives the coaches' messages, then the athlete's behavior may confirm the original expectations (Martinek, Crowe, & Rejeski, 1982). Studies by Horn (1984) and Rejeski, Darracott, and Hutslar (1979) have laid the foundation for research on the SFP in sport settings. Both investigations used the Coaching Behavior Assessment System (CBAS; Smith, Smoll, & Hunt, 1977) to code coaching behaviors. Horn (1984) found no differences between feedback patterns directed toward high versus low expectancy junior high school players during a practice setting. Rejeski et al. (1979) found that "high expectancy" children involved in youth basketball did receive more positive reinforcement. Low expectancy children, by contrast, received more general instruction. Martinek and Karper (1984) however, found contradicting evidence in gym classes where low expectancy groups actually received more attention and instruction than high expectancy groups. In game situations, however, Horn (1984) found low expectancy children received more praise and instruction which goes against assumptions of the self-fulfilling prophecy. These studies do not show a clear indication of the self-fulfilling prophecy in non-elite sports (Wayda, 1996).

In the college and elite settings, two studies have shown support for the self-fulfilling prophecy (Krane, Eklund, & McDermott, 1991 as cited in Wayda, 1996; Sinclair & Vealey, 1989). Sinclair and Vealey (1989) found that among elite field hockey teams, high expectancy athletes received more overall, specific, and evaluation feedback. Low expectancy hockey players received more instructional feedback. Krane and associates In the sport domain, the SFP research suggests coaches' expectations are grounded in numerous factors including age and ability. Expectations are conveyed to the athletes conducted a single subject action research intervention with a college coaching assistant whose only interest was in implementing feedback adaptations on high expectancy athletes. These studies show that SFP is present in more elite sporting levels (Wayda, 1996).More research on the self-fulfilling prophecy in the sports setting

is needed to fully understand if coaches' expectations do in fact influence athletes' performance and perceptions, as well as, motivation to continue a sport.

Another area of interest in sports is athlete motivation to participate and practice a sport. The study of motivation in the sport environment can produce at least one major benefit by furthering research on the psychological processes that drive participation in sport. More research must explore the coach behaviors that decrease motivation. Knowledge of what motivates, or de-motivates, athletes to participate can help others create environments that will enhance the motivation and enjoyment of sport for all participants (Vallerand & Fortier, 1998).

Intrinsic Motivation (IM)

Motivation is defined as the intensity level of effort, and the direction the effort is put forth toward an activity (Weiss & Ferrer-Caja, 2002). Individuals participate in activities for varying reasons and put forth varying degrees of energy for each activity. Deci and Ryan (1985) and Ryan and Deci's (2000) self-determination theory (SDT) outlines motivational reasons for individuals choosing to participate in activities, exert effort, and continue an activity. SDT explains the reason for action, effort, and continued participation along a continuum of self-determined behaviors starting with amotivation, extrinsic motivation, and then intrinsic motivation.

The first classification of motivation in the SDT reflects a lack of motivation, and is termed *amotivation*. The next classification is extrinsic motivation (EM). Extrinsic motivation involves participation in activities for instrumental reasons, such as receiving rewards or avoiding punishment. Four types of EM are identified in the SDT that vary from lower to higher levels of self-determined motivation. The least self-determined form of extrinsic motivation is *external regulation*. This type of motivation is regulated through external means such as rewards and limitations (Vallerand & Fortier, 1998). For instance, a volleyball player choosing to go to a voluntary practice because she is afraid the coach was mad at her exhibits externally regulated motivation. The next dimension is termed *introjected regulation,* and occurs when an individual begins to internalize reasons for action. This dimension is still not considered self-determined behavior because behavior is limited to memories from past external events. An example of this type of regulation would be if a swimmer trains to avoid feeling guilty and anxious about not training. Both of these types of EM involve little self-determination insofar as little or no motivational autonomy is involved. The third type of EM (i.e., *identified regulation*), however, is considered self-determined because the energization of behavior is made by autonomous choice. When motivated by identified regulation, individuals participate in an activity because they deem it as valuable even though the activity may not be pleasant. For example, a softball player might decide she wants to improve her stamina by long distance running. Although she does not find the training interesting or enjoyable, she still chooses to run because she knows it was good for her—not because of external pressures from the coach or internal pressures from guilt. The last type of extrinsic motivation, *integrated regulation*, is considered to be the most self-determined type of EM because the person chooses to participate in an activity, and because the importance and value of the activity has been integrated into the person's sense of self. The difference here is that the behavior chosen is not specific to only the activity, but also to the well-being of the self. For instance, a collegiate athlete deciding to study for an exam instead of going to a party the night before would be energized by integrated regulation if he does so because performing well

as a student, as well as an athlete, is important to his sense of self. Again, the decisions in all four cases to participate in an activity were not simply because the activity is pleasurable.

Intrinsic motivation is usually defined as the motivation to participate in an activity for the simple pleasure and satisfaction received from the activity itself (Hollembeak & Amorose, 2005). Intrinsic motivation has also been conceptualized within several dimensions. Vallerand and Bissonnette (1992) established three different dimensions of intrinsic motivation: intrinsic motivation (a) to know, (b) toward accomplishments, and (c) to experience stimulation. IM to know is defined as participating in an activity for the pleasure of learning, exploring, or trying to understand a new concept (Vallerand & Fortier, 1998). A softball pitcher who continues to pitch could be termed intrinsically motivated if her participation is energized by an interest in learning more about the game, and refining her pitching skills. Intrinsic motivation toward accomplishments is participating in an activity for the satisfaction of attempting to surpass oneself, or to accomplish or create a new concept. An example of this type of intrinsic motivation can be seen among runners who run because they enjoy engaging in and expanding their running capabilities. The last type of intrinsic motivation is to experience stimulation. In this instance, people participate in an activity to feel sensory and aesthetic pleasure. Sky divers can be thought of as providing excellent examples of people who might exhibit this type of IM. They jump out of planes because they enjoy the adrenaline rush they feel from participating in the activity. The Self-Determination Continuum shown in Figure 1, illustrates all types of internal motivation.

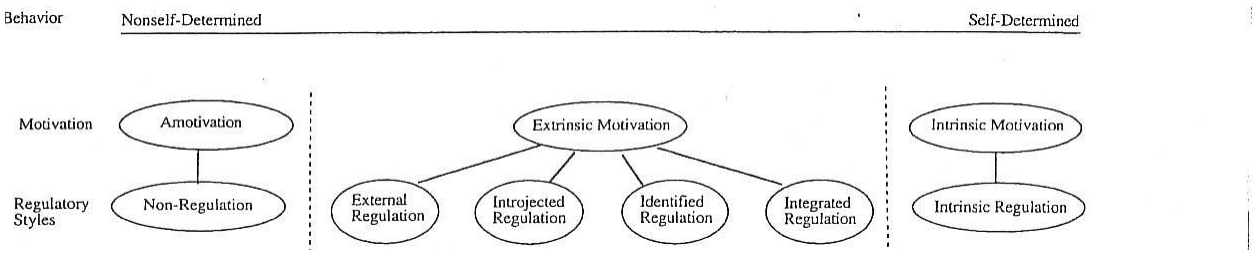

Figure 1. The Self-Determination Continuum (From "Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being," by R. Ryan and E. Deci, 2000, *American Psychologist, 55*, 72. Copyright 2000 by the American Psychological Association.) In the item depicted, the types of motivation are shown along a continuum of behavior.

Although people have multiple motives (both intrinsic and extrinsic) for engaging in activities, there are a number of benefits for individuals who participate mostly for intrinsic reasons (Weiss & Ferrer-Caja, 2002). Athletes who participate in sports for intrinsic satisfaction have been found to practice more, enjoy sport participation, and desire to continue participation in their sport more than athletes who participated for extrinsic reasons (Ommundsen, Roberts, & Kavussanu, 1998). Research has also shown that more intrinsically motivated and self-determined athletes invest more effort (Williams & Gill, 1995), maintain higher levels of concentration, and exhibit more persistence (Sarrazin, Vallerand, Guillet, Pelletier, & Cury, 2001) than athletes who rely upon non-self-determined types of motivation.

Participation for more extrinsic reasons has actually shown a negative effect on intrinsic motivation under some circumstances. For example, Deci (1971 as cited in Vallerand, Deci, & Ryan, 1987) found that people who were rewarded money for participating in a mechanical puzzle (SOMA) activity spent significantly less time on the target task than individuals who were not rewarded for performing the same task. Even though the SOMA puzzle task was labeled as an 'interesting' activity, and one that should have kept the participants' attention, the extrinsic monetary reward actually decreased intrinsic motivation to complete the task. The Cognitive Evaluation Theory (CET) can be used to help explain the effects of external rewards on intrinsic motivation.

CET is a subtheory of SDT (Deci & Ryan, 1985). CET is focused specifically on the effects of external rewards on intrinsic motivation. CET suggests two main determinants of intrinsic motivation: (a) the degree individuals feel self-determined in their environment, and (b) the extent to which individuals feel competent about a specific discipline. The theory states that IM for an activity varies according to the extent an individual feels a sense of personal control or choice (i.e. autonomy), and competence in that activity. Any behavioral contingency that can influence the individual's perceptions of competence and autonomy eventually leads to a change in the individual's intrinsic motivation level for the given activity (Amorose & Horn, 2001). Many environmental and interpersonal factors have been shown to have an effect on and determine the level of intrinsic motivation (Frederick & Ryan, 1995; Deci & Ryan, 1985; Vallerand & Losier, 1999). One important factor that deserves more attention and appears to affect motivation in sport is coaches' behaviors towards their athletes (Amorose & Horn, 2001).

In the self-fulfilling prophecy (SFP), it is theorized that coaches' behaviors toward athletes depend upon their expectations of the athletes (Horn, Lox, & Labrador, 1998). Coaches' expectations of an athlete can alter their behavior toward their athletes. In turn, these behaviors can have an impact on the athlete's perceptions of his or her sport involvement. If a coach develops a low expectation about a player's ability, the coach could in turn react toward the athlete in ways that decrease the athlete's motivation to play. Research on the SFP and motivation explores on how to maintain athletes motivated to play despite undesirable coaching behaviors.

Relationship Between Intrinsic Motivation and the Self-Fulfilling Prophecy

Coaching behavior has been receiving more attention with time. Smith, Smoll and colleagues (Smith et al. 1979; Smith, Smoll, & Hunt, 1977; Smith, Smoll, & Barnett, 1995) conducted several studies involving youth baseball players and their coaches. In Smith et al. (1979), coaches were randomly assigned to either a control group or a training program that emphasized positive reinforcement and technical instruction. Compared to athletes of control group coaches, the athletes from the experimental group showed an increase in self-esteem from pre- to post-season, felt the trained coaches knew more about the game of baseball, and had an increase in over-all enjoyment from the season. Increases in positive verbal feedback have also been associated with an increase in intrinsic motivation, and punitive verbal feedback has been shown to decrease levels of intrinsic motivation (Vallerand, 1983; Vallerand & Reid, 1984; Whitehead & Corbin, 1991).

Black and Weiss (1992) studied the effects of coaches' feedback on youth-aged swimmers. Athletes rated coaches' behaviors based on their perceptions. Despite age-specific and gender-related differences, the coaches who were rated as showing more frequent behaviors of praise and information after a desirable performance, and more frequent behaviors of encouragement and information after undesirable performances, were more likely to have

athletes report higher levels of perceived success, perceived competence, enjoyment, effort, and preference for maximally challenging activities. The results of these studies follow CET contentions. The CET predicts that the use of positive (e.g. praise, encouragement) and informational (e.g. technical instruction) feedback leads to an increase in perceived competence, and increased levels of perceived competence leads to an increase in intrinsic motivation (Amorose & Horn, 2001).

Amorose and Horn (2000) found that not only are perceived coaching behaviors influential on intrinsic motivation, but also coaches' perceived leadership styles. Although some gender-related differences were evident, overall findings indicated that coaches who were perceived as providing high levels of positive reinforcement and instructional feedback, high levels of democratic behavior, and low levels of autocratic behavior, and did not ignore players' performance attempts had athletes who reported higher levels of intrinsic motivation. Higher levels of intrinsic motivation included a higher interest and enjoyment, perceived competence, effort, and importance of the activity to the athlete. A year later, Amorose and Horn (2001) found in first year college athletes, some coaching behaviors, such as training instruction, did increase intrinsic motivation from pre- to post-season, but positive feedback did not have an effect on IM. Similarly, coaches who ignore athletes' performances, or provide negative feedback information to athletes, show a negative effect on intrinsic motivation (Horn, 1987).

Purpose of Study

The purpose of this study is to examine the self-fulfilling prophecy relative to the possible effects that an expectancy placed on a player by a coach can have on that athlete's motivation. According to Horn et al. (1998), the self-fulfilling prophecy process involves the development of a coach's initial expectancy about an athlete based on the most reliable information present at the time. Over the course of observing the athlete in action (practice, season, etc.), the coach's treatment of the athlete is influenced by those initial expectations. High expectancy athletes tend to receive more attention and more positive feedback about performances, while low expectancy athletes receive more informational, negative, or no feedback about performance from the coach (Amorose & Weiss, 1998). Eventually, behaviors the coach exhibits toward the athlete result in fulfillment of the coach's either high or low expectations. In turn, this fulfillment of expectations serves to confirm the veracity of the coach's initial expectations about the athlete, meaning the self-fulfilling prophecy was completed (Horn, Lox, & Labrador, 1998).

According to Deci and Ryan's (1985) self-determination theory, a decrease in competence is likely to lead to a decrease in intrinsic motivation. For low expectancy athletes, the differential treatment by the coach (e.g. lack of feedback or negative feedback) can decrease levels of perceived competence and intrinsic motivation for that athlete (Horn, 1987). The change in levels of competence creates an indirect effect on changing levels of intrinsic motivation. Therefore, if competence level is increased or decreased based on perceived coaching behavior then IM should show a change for the positive or negative, respectively (Deci & Ryan, 1985). This is an important idea because to maximize or enhance athletic performance research efforts must explore ways to avoid negative effects of coaching behaviors (i.e. low expectancy behaviors of the SFP), and increase intrinsic motivation.

Since intrinsic motivation is required in athletes for continued participation, enjoyment, effort (Ommundsen, Roberts, & Kavussanu, 1998), and possibly performance quality (Vallerand, Deci, & Ryan, 1987; Mageau & Vallerand, 2003), studying the effects of coaching behavior on athletes' motivation is of interest and importance. Intrinsic motivation seems to be a key factor

for continued participation, but some forms of extrinsic motivation can be equally important for athletic participation. The more self-determined types of extrinsic motivation (identified regulation and introjected regulation) can also be used to increase intrinsic motivation. For that reason, six types of motivation were assessed in this study: (a) amotivation, (b) external regulation, (c) introjected regulation, (d) identified regulation, and (e) intrinsic motivation.

If the self-fulfilling prophecy has a negative effect on an athlete's feelings of personal competence, motivation to play, and performance, then actions need to be taken to avoid negative consequences and improve coaching standards. Most research shows that intrinsic motivation is vital in the continuation of sports. Increased intrinsic motivation may also be a way to counter the potential negative affects of a self-fulfilling prophecy.

Deci and Ryan's (1985) self-determination theory supports the idea that a decrease in competence level will likely show a decrease in intrinsic motivation. Horn (1987) has found support for the notion that differential treatment by a coach (e.g. lack of feedback or negative feedback) can decrease levels of perceived competence held by the athlete. Coaches who form expectancies about a player's performance ability have been shown to treat the player differently based on the personal expectation the coach has formed. This study will first attempt to create an environment where a coach can potentially form an expectation about player performance. By issuing players different colored wristbands, the desire is that the coaches will assume the wristband colors are separating the athletes by skill level. Secondly, this study will attempt to further research in the sport domain by studying differential coach behaviors toward athletes with which they have formed expectations, and observing if coach behaviors have an affect on the athlete's motivation to play their sport shown through a decrease in competence levels.

Research Hypotheses

1. Differential initial expectations for athletes would be formed by coaches based on the athlete's group membership and the associated wristband color,
2. No expectation differentiation based on wrist band color across groups would be observed at the end of camp.
3. Athletes identified by coaches as high expectancy athletes at the end of camp would show an increase in perceived sport competence and motivation levels pre- to post-camp, and athletes identified by coaches as low expectancy athletes at the end of camp would show a decrease in perceived sport competence and motivation levels pre- to post-camp.
4. Perceived sport competence would be positively associated with intrinsic motivation and identified regulation relative to continued softball involvement.
5. Perceived sport competence would be negatively associated with introjected regulation, external regulation, and amotivation in regards to continued softball involvement.
6. High expectancy athletes would perceive coaches to be exhibiting more "positive coaching behaviors" (e.g., instruction, corrective feedback, etc.) compared to low expectancy athletes.

CHAPTER 2

METHODS

Participants

Eighty-five of 90 athletes (94%) attending a 2007 summer softball skills camp participated in this study. Athletes ranged from ages 12 - 17 years old with an average of 14 years old (M = 14.1; SD = 1.5). All but four athletes were Caucasian (1 African American, 1 Hispanic, and 2 reported as 'Other'). Athletes varied in their level of experience playing softball with most reporting between 6 -10 years of softball playing experience. Four reported 2 years or less of experience, 38 reported 3 - 5 years experience, 39 reported 6 - 10 years experience, and 4 exceeded 10 years of experience. Athletes had an average softball playing experience for their current team of 3.2 years (SD = 1.9). The athletes had an average of 3.8 years (SD = 2.1) playing at their most experienced level. The majority of athletes reported having the most experience with teams that were summer travel ball teams not recognized by the Amateur Softball Association (ASA). More detailed demographic information and descriptive statistics on the athletes is provided in Table 1. These athletes were pre-assigned to eight different teams by the camp director based on the position the athlete played in softball. This assignment was done in order to ensure proper softball teams would be formed for camp activities.

Table 1

Athlete Participant Descriptive Statistics

Variable	*Category*	*Frequency*	*%*	*Cumulative %*
Soft Ball Experience				
	0-2 years	4	4.70	4.71
	3-5 years	38	44.70	44.71
	6-10 years	39	45.80	45.88
	11+ years	4	4.70	4.71
Current Team Level				
	Recreational	4	4.70	4.71
	Middle School	6	7.05	7.06
	High School-Junior Varsity	3	3.53	3.53
	High School-Varsity	8	9.41	9.41
	Summer ball other than ASA	18	21.18	21.18
	ASA Class B	12	14.12	14.12
	ASA Class A	27	31.76	31.76

Table 1 continued.

Variable	*Category*	*Frequency*	*%*	*Cumulative %*
	ASA Gold	7	8.24	8.24
Team Level with Most Experience				
	Recreational	18	21.18	21.18
	Middle School	3	3.53	3.53
	High School-Junior Varsity	2	2.35	2.35
	High School-Varsity	6	7.06	7.06
	Summer ball other than ASA	21	24.71	24.71
	ASA Class B	12	14.12	14.12
	ASA Class A	20	23.53	23.53
	ASA Gold	3	3.53	3.53

Eight softball coaches (5 male, 3 female) also participated in this investigation. All were employed at the women's softball camp where the study was conducted, and all agreed to participate in this study. The coaches were from Georgia and Florida; all Caucasian, and hired by the camp director. These coaches ranged in age from 33 - 55 years (M = 42.6, SD = 6.4) and had an average softball playing experience of 3 years (SD = 1.7). Of the eight coaching participants, five indicated that their highest level of personal playing experience in softball was in a recreational league. Examination of Table 2 reveals that most of the coaches working at the camp had recreational level softball experience as athletes. The coaches had an average of 3.9 (SD = 1.3)years of coaching experience. Two coaches had played Division I, or Division II level softball. One coach
had no softball playing experience. In terms of coaching experience, four indicated that their highest level of coaching was high school varsity. Two coaches had coaching experience at the college level (i.e., Division I or Division II) while the remaining two had coached either recreational softball, or softball at levels other than high school or college (i.e., summer travel ball, private instruction). Also, most coaches had no collegiate coaching experience but rather had recreational or high school varsity coaching experience. Currently active coaches who chose the 'Other' option on the questionnaires listed their coaching experience at the summer travel ball level. Seven of coaching participants were active coaching teams aside from their summer camp involvement. More detailed demographic information on the coaches is provided in Table 2.

Table 2

Coach Participant Descriptive Statistics

Coach Characteristics	*Frequency*	*%*
Gender		
Male	5	62.50
Female	3	37.50
Highest Level of Play		
Recreational	5	62.50
Division II	1	12.50
Division I	1	12.50
None	1	12.50
Highest Level of Coaching		
Recreational league	1	12.50
High School Varsity	4	50.00
Division II	1	12.50
Division I	1	12.50
Other	1	12.50
Currently Coaching		
Yes	7	87.50
No	1	12.50
Current Level if Active		
Not currently coaching	1	12.50
Division II	1	12.50
Division I	1	12.50
Other	5	62.50

Measures

Informed consent (Appendix A, Appendix B, and Appendix C). Forms approved by the Florida State University Human Subjects Committee conveying a basic description of the researcher and study, the demands of the study on the participant, what participants can expect from the study, the risks and benefits associated with participation in the study, and the guarantee of confidentiality and anonymity were provided to participants. It also provided the researcher's contact information and asserted that participants may choose to withdraw from participation in the study at any point without penalty. Informed consent was indicated with signatures on the document from each adult participant, youth participant legal guardians, and youth participants in accord with Human Subjects Committee requirements.

Demographic information (Appendix E and Appendix M). The form eliciting demographic information included questions on participants' age, gender, current sport level coached and/or played, coach status, and coaching/playing experience.

The Sport Motivation Scale (SMS; Pelletier, Fortier, Vallerand, Tuson, & Briere, 1995) *(*Appendix D*).* The Sport Motivation Scale is used to assess seven forms of motivation for sport

participation based on the constructs of Deci and Ryan's (1995) Self-Determination Theory. The SMS is composed of 28 items that represent reasons for sport participation. The items in the SMS measure motivation from the most self-determined behaviors to the least self-determined behaviors (Vlachopoulos, Karageorghis, & Terry, 2000). The most self-determined motives are the three types of intrinsic motivation: to know, to accomplish, to experience stimulation. The four types of extrinsic motivation measured are identified regulation, introjected regulation, external regulation, and amotivation. Integrated regulation is not measured by the SMS because of the fine line of distinction between integrated and identified regulation. Creating questions to represent integrated regulation is too difficult. The SMS uses a Likert-type scale ranging from 1 *(does not correspond at all)* to 7 *(corresponds exactly)*. An example question from the SMS is: "Why do you practice your sport? For the pleasure I feel in living exciting experiences."

The SMS was developed from the Echelle de Motivation vis-à-vis les Sports (EMS) (Pelletier, Fortier, Vallerand, Tuson, & Briere, 1995). The EMS was originally written in the French language, and was used for academic settings. However, Pelletier et al. (1995) translated the EMS into English and adjusted it to fit the sports setting through the use of two experimental study groups. The first study had five purposes. Firstly, to translate the EMS into English, secondly, to examine the factor structure of the SMS through confirmatory factor analysis (CFA) with LISREL 7, thirdly, to assess internal consistency of the seven subscales, fourthly, to assess the construct validity of the scale, and fifthly, to verify if the gender differences on the subscale means observed with the French-Canadian sample would also be evident with the English sample. The first study of the SMS was completed by 593 university male and female athletes across a variety of college sports. Internal consistency values were assessed using Cronbach's Alpha. Across the seven types of motivation included in the SMS, adequate levels of internal consistency were supported (alpha= .74 to .80), with the exception of the Identification subscale, which had an alpha value of .63. However, the mean alpha score for the SMS was .75.

The second study was used to assess the temporal stability of the SMS, and was supported through test-retest correlations. Across a 5-week time span, fifty soccer players took the SMS twice. Test-retest correlations were acceptable, ranging from .58 to .84 with a mean test-retest correlation of .70. The French-Canadian version returned a mean r = .69, so the SMS results were very close to the EMS, and offered support for the temporal stability of the English version of the scale. The alpha values were acceptable varying from .71 to .85 for the pre-test, and from .69 to .85 for post-test across the seven subscales, and again, show similar results to the first study. The seven-factor structure of the SMS was supported from the results of the confirmatory factor analysis. Evidence to support the English version of the EMS (now labeled the SMS) has shown reliability and validity through a series of the two studies by returning similar results as the validation efforts from the French-Canadian version (Pelletier, 1995).

*Coach Questionnaire (*Appendix E, Appendix F, and Appendix G*).* The questions for the four Coach Questionnaires were developed specifically for this study. The questions probed the extent to which the coaches had high, low, or no expectations of athlete performance during camp. Dr. Thelma S. Horn served as an expert evaluator for these questionnaires. Dr. Horn (personal communication, April 4, 2007, Appendix H) examined each question on each of the three questionnaires, and offered her feedback as to how to strengthen each question. Two expert coaches with more than 25 years each of Division I softball coaching experience also evaluated the questions of these questionnaires and offered their feedback as to the strength of the questions (i.e., J. Graf, personal communication, April 1, 2007; J. Compton, personal communication, April 10, 2007).

Scoring for the questionnaires is based on a 7-point Likert scale for most questions on all three questionnaires. For the first questionnaire, an example question is: "I expect most athletes who attend summer softball camps will perform at a _____ skill level." Item responses for each item were recorded on Likert-type scale ranging from 1 *(below average)* to 7 *(above average)*. Other questions were scored according to multiple choice answers. An example question is: "I expect this athlete was capable of perform successfully at the _____ level after the completion of high school (circle one): Recreational, Junior College, Division III, Division II, Division I, I do not think she was able to play after high school." The General Coach Questionnaire contains four items pertaining to coach expectancies and general demographic items. The purpose of this initial questionnaire is to determine if the coaches involved in this study had any pre-existing expectations about the type of athletes who attend summer softball camps compared to all softball players in general.

The Coach Questionnaire-Before and the Coach Questionnaire-During are identical ten item measures that are intended to gather information about coach expectations about individual athletes involved in the coach's personal groups at the beginning of camp. An example question for the second questionnaire is: "I expect this athlete was able to perform basic softball skills easily." Responses for each item are recorded on Likert-type scale ranging from 1 *(does not correspond at all)* to 7 *(corresponds exactly)*. A picture of each camper included in the coach's group was attached to one questionnaire. The coach was asked to separately complete one questionnaire for each camper.

The Coach Questionnaire-Final is an eleven item measure that is intended to gather information about coach expectations about individual athletes in the coach's group at the completion of camp. An example question for the third questionnaire is: "I expect this athlete will struggle to perform basic softball skills." Responses for each item are recorded on Likert-type scale ranging from 1 *(does not correspond at all)* to 7 *(corresponds exactly)*. A picture of each camper included in the coach's group was again attached to the questionnaire relative to that athlete. The coach was asked to separately complete one questionnaire for each camper.

Physical Self-Perception Profile: Sport Competence Subscale (PSPP; Fox, 1990) *(*Appendix I*).* Fox (1990) developed the Physical Self-Perception Profile through a complex sequence of pilot studies to assess physical self-perceptions. The PSPP is a multidimensional scale that consists of five 6-item subscales. Four of the five subscales test for perceptions of specific sub-domains of physical self perception (i.e., sports competence, physical condition, body attractiveness, physical strength). The fifth subscale is used to measure general overall physical self-worth. In this investigation, only the sports competence subscale was completed by participants.

The PSPP employs items presented in a structured alternate format in an attempt to avoid socially desirable responses. The questionnaire starts off asking the participant to mark the response that best describes themselves as a person. An example of a question is, "Some people do not usually have a high level of stamina and fitness BUT others always maintain a high level of stamina and fitness". Participants have to decide which alternative most closely describes them and then indicate the extent to which that alternative fits them by making an answer of "*Really True for Me*" or "*Sort of True for Me*" for that item. The response format is then translated into an item score by placing half of the items in the instrument in reverse so that the lowest-scoring descriptor is placed first, and items from each of the sub-domains are placed in sequence within the complete profile. For example, for items number 1, 11, and 21 (the questions relating to sport competence), the boxes on the left side of the question scored 1 then 2

respectively. The boxes on the right side of the question scored 3 then 4 respectively. The opposite is true for the remaining questions, numbers 6, 16, and 26. More detail about the scoring can be found in the Physical Self-Perception Profile Manual (Fox, 1990).

The PSPP was developed through a complex sequence of pilot studies, instrument trials, and modifications. Participants for the pilot studies included 589 university male and female students attending required general education English and communication classes at the University of Illinois, along with an extended sample of students from a college in Missouri. Internal consistency reliability was established using Cronbach's Alpha for each of the subscales for both male and female students (alpha= .81 to .92). All items contributed consistently well to the functioning of the subscale because they returned a mean corrected item-total correlation score for all subscales of .69 for females and .63 for males. For test re-test reliability, the PSPP was re-administered to 40 participants after a 16-day time span, and to another 36 participants after a 23-day time span. The tests re-test reliability correlation coefficients ranged from .74-.89 indicating responses are stable over a 2-3 week period.

Factor analyses of the PSPP subscales reveal a strong factor structure, which explained 68.9% of the variance in females, and 63.5% of the variance for males. Item loadings were closely reproduced in further principal components analysis with a second sample. In addition, a confirmatory factor model that represented four correlated latent variables was tested using LISREL VI on the data from the second sample. Goodness of fit indices demonstrated that the items in the PSPP were well represented by the four factor solution. This same structure has held strongly with other samples as well in a modified version (Fox, 1990).

Coaching Behavior Assessment System Perceived Behavior Scale (CBAS-PBS; Cumming, Smith, & Smoll, 2006*) (*Appendix J*).* The original Coaching Behavior Assessment System (CBAS; Smith, Smoll, & Hunt, 1977) was created as a system for observing and recording coaching behaviors during games and practices. The CBAS has been used in several studies in Youth Little League Baseball. Smith et al. (1977), found the coding system of this tool to be very effective in capturing an outsider's perspective of coaching behaviors. Smith, Smoll, and Curtis (1979) found, however, that the coaches themselves tended not to be entirely aware of behaviors they were displaying toward their athletes. The CBAS has been used mostly in studies to study positive reinforcement and feedback from coaches (Smith, Smoll, & Barnett, 1995; Smith et al., 1979; Smith et al., 1977).

The original CBAS contains 12 behavioral categories subdivided into reactive and spontaneous categories. The reactive behaviors are potential responses to situations that are easy to relate to. Reactive behaviors include reinforcement or non-reinforcement responses to athletes' positive behaviors or effort; mistake-contingent technical instruction, ignoring mistakes as responses to mistakes and errors; and keeping control as a response to misbehaviors. Spontaneous behaviors include general technical instruction, general encouragement, organization, and general communication. The CBAS training program was empirically derived from a preliminary investigation involving 51 Little League coaches and 542 of their players (Smith et al., 1978). Procedures involved in-depth interviews with players and coaches, coach training sessions, and extensive external observation and coding of coaching behavior during competition. A control group was used for comparison among behaviors. A stepwise discriminant analysis of behavioral ratings made by the control group and experimental group revealed significant difference in group centroids based on the 12 behaviors (*Wilks'* λ = .91, $p < .002$). Between the two groups, F tests revealed that there was a significant difference between how athletes under the direction of CBAS trained coaches perceived their

coach's behavior compared to how athletes under un-trained coaches viewed behaviors. More support for the reliability and stability of the CBAS can be found in Smith, Smoll, and Curtis (1979).

The CBAS Perceived Behavior Scale was developed as a 12-item measure to assess athletes' perceptions of their coach's behaviors. The CBAS-PBS uses a definitional approach by providing a description of each of the original CBAS categories as a separate question. The athlete indicates the frequency with which the coach behaved in that manner. A sample definitional item (mistake-contingent encouragement) taken from the CBAS training manual is: "Sometimes players goof and make mistakes. Some coaches give their players support and encouragement after they make a mistake. For example, they may say, "That's okay, don't worry about it, you'll get them next time. Other coaches encourage you after you make mistakes." Athletes indicate how frequently their coaches engage in each class of behavior on a 7-point Likert scale with 1 *(never)* to 7 *(almost always)*. A slightly modified version of the CBAS-PBS can be used to measure coaches' perceptions of their own behaviors. For this study, the CBAS-PBS was used to assess the athletes' perceptions of their coaches' behaviors.

Expectation Manipulation

Campers were assigned to four groups based on the pre-determined team assignments made by the camp director prior to arrival at camp. Two teams were combined to serve as the control group, two combined as the red group, two combined as the silver group, and two combined as the gold group. Each athlete was issued a colored arm band in the color assigned to their team (i.e. gold group members received a gold wristband) prior to the first session of camp. The control group was not issued armbands. Table 3 shows how many athletes were in each color band group.

Table 3

Athlete Assignment to Wristband Color Groups

Wristband Color	*Frequency*	*%*	*Cumulative %*
Red	21	24.71	24.71
Silver	20	23.53	48.24
Gold	22	25.88	74.12
Control	22	25.88	100.00

The armbands did not hold an explicit meaning beyond group membership for campers or camp personnel.

The Amateur Softball Association (*ASA, ASA Quick Facts, 2006*) (Appendix K) is considered the National Governing Body of Softball in the United States. This organization divides competing teams by skill level with the use of a class system. Class B is the lower skill level, with Class A being the second best, and Gold Level being the most elite level athletes. For this camp, implicitly, however, these colors may have had meaning for the campers and camp

personnel because gold is the color associated in softball circles with elite skill-level players (ASA Gold level), whereas silver is associated with the average skill level players (ASA Class A), and red represents below average skill-level players (ASA Class B or recreational league).

All campers were asked to provide information about individual playing experience (i.e. level of play, awards/accomplishments) prior to the first session of camp. After campers completed the initial questionnaire, the experimenter chose one girl for each group as an unspoken representative of that group based on that particular camper's playing experience. That camper was also chosen (based on playing experience) to represent the implicit meaning of the colored armband for that particular group. For example, the representative for the gold group was a camper who had played softball for several years, she had played at a high level, and she had many awards and accomplishments so far in her softball career. This particular camper represented the implicit meaning of the gold colored band because she was be the type of player that was expected by coaches to play at the ASA Gold level of travel softball. During the first session of camp, the representative camper from each of the three color groups was introduced to the coaches assigned to work with that color of wrist band. Each camper's picture was taken upon arrival to camp to be used so the coaches can identify the players as they are filling out the expectancy questionnaire. The camper's name was written on the picture (for identification purposes only) in the same color as the wrist band the girl was assigned, except control group members who used a pencil to write their name. The intention was to remind the coaches what color wrist band the camper was associated with without verbally stating the color. Instruction by coaches was similar across all groups.

Procedure

Permission to conduct the study was obtained from the Florida State University Human Subjects Committee (Appendix L). Permission to execute the study was obtained from the director of the Higher Ground Softball Camps. Higher Ground is the organization that conducted the softball camp which ran for 5 days with 6 instruction sessions (2 hours in length) per day during June of 2007. Next, the coaches, and parents or legal guardians of the athletes were contacted by email with a brief description of the study *(*Appendix M and Appendix N*)*. All participants and parents/legal guardians were informed that an informed consent form must be signed upon arrival to camp and before any data was collected.

Coaches/Counselors: Upon arrival to camp, each coach participant received a packet of questionnaires including the informed consent form (Appendix C), the demographic questionnaire (Appendix E), and the General Coach Questionnaire (Appendix E). Each packet was numbered for the purpose of data analysis and to ensure the confidentiality of the participants. In this packet was a roster listing the names, position, and age of the athletes on the coach's "team" for the camp. Before the first session of camp, each coach was issued the Coach Questionnaire-Before (Appendix F), and after the first session of camp was completed, the coaches were issued the Coach Questionnaire-During (Appendix F). Coaches answered separate Questionnaires about each athlete assigned to their team. The athlete's picture was stapled to the questionnaire each time the coach answered questions. On the second day of camp, the experimenter made general communication with each coach about one particular athlete within the coach's assigned color group. The experimenter brought up in casual conversation the chosen athlete's playing experience, current team level, and/or relevant awards. For example, one coach assigned to the gold group was approached about an athlete who the experimenter had chosen to represent an elite level athlete based on the information gathered from the athlete about playing experience and playing level. The Coach Questionnaire-Final *(*Appendix G) was issued on the

last day of camp upon the completion of the final session. One question was included to check the manipulation effect of the wristbands on the final questionnaire.

Athletes. Upon arrival to camp, each athlete participant received a packet of questionnaires (labeled 'Player Questionnaire 1', Appendix M) including the parental informed consent form (Appendix A), the child assent form (Appendix B), the demographic questionnaire (Appendix M), The Sport Motivation Scale (Appendix D), and The Physical Self-Perception Profile (Appendix I). Each athlete was issued a colored wrist band for the self-fulfilling prophecy portion of this study based on the pre-determined team assignment. The control group contained 22 athletes, the red group contained 21 athletes, the silver group contained 20 athletes, and the gold group contained 22 athletes. Each participating athlete's picture was taken upon arrival to camp. The camper's name was written by the athlete on the picture (for identification purposes only) in the same color as the wrist band the athlete was assigned. Athletes assigned to the control group were not issued a wristband, and they wrote their name on their picture in pencil. Athletes assigned to the red group were issued red wrist bands and wrote their name with a red marker. Athletes in the silver group were issued silver wrist bands and wrote their name with a silver marker. Athletes in the gold group were issued gold wrist bands and wrote their name with gold marker. The pictures of the athletes were given to the athletes for personal use at the end of camp.

After the first instruction session of camp, the athletes were issued the Coaching Behavioral Assessment System-Perceived Behavior Scale (CBAS-PBS, Appendix J) questionnaire. The athletes were instructed to answer the questions on the CBAS-PBS about the coach of the team they were assigned to, not instructors from specialized teaching sessions. A statement noting that the wristbands they are wearing are for identification purposes only was included at the end of the CBAS-PBS questionnaire. After the completion of camp, each athlete was issued a packet (labeled 'Player Questionnaire 2', Appendix N) that included the Sport Motivation Scale (Appendix D), the Physical Self-Perception Profile (Appendix I), and the Coaching Behavioral Assessment System-Perceived Behavior Scale (CBAS-PBS, Appendix J). Athletes were given their pictures that were taken at the beginning of camp for personal use.

Statistical Analysis

The analysis of data was followed in six phases. First, alpha coefficients were calculated on all multi-item measures to evaluate internal consistency of measurement. Second, descriptive statistics of all variables were calculated.

A Repeated Measures Analysis of Covariance (RM-ANCOVA) was used to compare coach expectations (both initial and post study scores) across the color manipulation groups to test the first and second hypotheses. The RM-ANCOVA was employed to control for the individual differences in the coach ratings evident in the coach general expectation ratings.

Split plot Analysis of Variance (ANOVA) analyses were used to test the third hypothesis to compare perceived competence and motivation measures across athletes identified as high and low expectancy athletes. Correlational analyses were conducted for the fourth and fifth hypotheses to examine relationships between perceived competence and motivational types. For the sixth hypothesis split plot ANOVA was used to examine perceptions of coaching behavior across the camp for participants identified as high and low expectancy athletes.

For this study, Cohen's *d* and eta-squared effect-size estimates evaluations are also reported. This study utilizes benchmarks presented by Cohen (1988) for interpreting Cohen's *d*, where 0.2 equates to a small effect, 0.5 equates to a medium effect, and effects larger than 0.8

equate to large effects. Eta-squared evaluations as proposed by Cohen (1988) are: .01 equates to a small effect, .06 equates to a moderate effect, and .14 equates to a large effect.

CHAPTER 3

RESULTS

The internal consistency coefficients (Cronbach's alpha) were examined for multi-item measures used in this study. The measures requiring internal consistency coefficients for this study were the Coach Expectation Questionnaire, the Sport Motivation Scale (SMS), and The Physical Self Competency Profile (PSPP). The alpha values and corrected item-total correlation ranges for data obtained in the investigation are presented in Table 4. Examination of this table reveals that the observed alpha values exceeded Cohen's (1988) minimum criterion of $d = .70$ in most instances with a substantial portion in the .8 to .9 region. Unfortunately, however, subscales of Sport Motivation Scale were not uniformly adequate in internal consistency with alpha values below .70 being observed in the *initial* data collection (i.e., Introjected Regulation, Identified Regulation) and *final* data collection (i.e., External Regulation). This finding is not particularly unusual. Separating the definition of "introjected regulation" and "identified regulation" can be difficult to define in individual questions. Questions relating to these two types of motivation could have been worded poorly or unclearly for the athletes by the Sport Motivation Scale. These two types of motivation were studied regardless because they do have two distinct definitions. Identified regulation is considered a more internal type of motivation, and was important for the nature of this study.

Table 4

Internal Consistency Coefficients for all Measures

	Number of Items	*Cronbach's α*	*Corrected Item - Total Correlation Range*
Coaching Expectations			
Before	10	0.88	.64 - .86
During	10	0.92	.63 - .78
Final	11	0.92	.58 - .86
General	4	0.85	.44 - .88
Sport Motivation Scale	28		
Initial			
Know	4	0.83	.55 - .71
Accomplish	4	0.88	.70 - .77
Stimulation	4	0.69	.40 - .54
External Regulation	4	0.71	.32 - .62
Introjected Regulation	4	0.60	.32 - .51
Identified Regulation	4	0.58	.23 - .50
Amotivation	4	0.81	.54 - .78

Table 4 continued.	*Number of Items*	*Cronbach's α*	*Corrected Item - Total Correlation Range*
Final	28		
Know	4	0.92	.76 - .88
Accomplish	4	0.93	.80 - .85
Stimulation	4	0.78	.43 - .69
External Regulation	4	0.66	.19 - .63
Introjected Regulation	4	0.74	.47 - .62
Identified Regulation	4	0.74	.44 - .63
Amotivation	4	0.77	.51 - .65
Physical Self-Perception Profile			
Initial			
Sport Competency*	5	0.79	.42 - .68
Final			
Sport Competency*	5	0.80	.52 - .64

**Note: PSPP-Sport Competency with one item removed*

Coach Expectancies

The descriptive statistics for coach expectancy variables are presented in Table 5. Examination of Table 5 shows the mid-point for the general expectations questionnaire was 4. Coaches' general expectations for athletes attending summer camps were, on average, just above 5 (M = 5.09), or slightly above the scale mid-point. The same can be said for coach expectations about campers attending this camp before, during, and after. An interesting observation of Table 5 shows that on average, the coaches' general expectations (M = 5.09) were slightly higher, descriptively, than the average ratings provided for specific campers before the camp started (M = 4.85). Coach expectations for the athletes attending camp were descriptively lower, on average, at the beginning of camp than at either of the subsequent time periods. The effect size for the Before and During test time periods yields a small effect size (d = .16), as well as a small effect size for the During and Final test time periods (d = .06).

Table 5

Descriptive Statistics for Coach Expectancy Variables by Time Period

Variable	Range	Mean	SD	Min.	Max.
Expectancies					
General	1 - 7	5.09	0.85	3.50	6.50
Before	1 - 7	4.85	0.79	3.13	7.00
During	1 - 7	5.00	1.08	1.75	7.00
Final	1 - 7	5.07	1.14	2.13	7.00

A repeated measures ANCOVA was performed to test if coaches' initial, midpoint, and final expectations differed inferentially based on the athletes' group membership and associated group wristband color. The estimated marginal means for each wristband group across the different time points are presented in Figure 2 (where 1 = initial test time, 2 = middle test time, and 3= final test time).

Mauchly's Test of Sphericity indicated that no adjustment for sphericity was required in these analyses, *Mauchly's w*= .934, $\chi^2(2) = 5.43$, $p = .066$. Nonsignificant main effects were observed for time, $F(2,160) = 2.69$, $p = .071$, $\eta^2 = .033$, and group $F(3, 80) = 2.154$, $p = .10$, $\eta^2 = .075$. A significant interaction between the covariate (general coach expectation) and time, however, was observed, $F(2,160) = 3.754$, $p = .026$, $\eta^2 = .045$. An interaction indicating that the covariate adjusted interaction between group membership and time was significant, $F(6,160) = 2.265$, $p = .040$, $\eta^2 = .078$. Although significant, all effect sizes observed were moderate in magnitude.

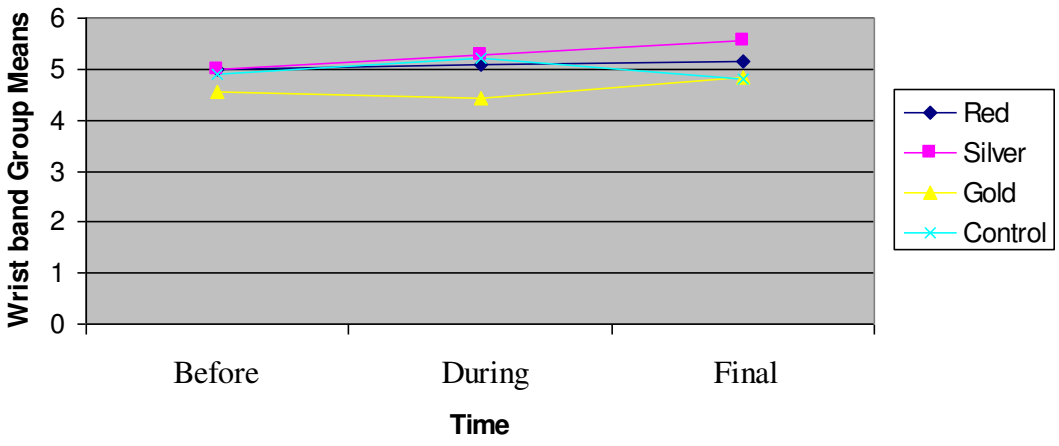

Figure 2. Marginal means for before, during and final coach expectancies for individual athletes by manipulation groups adjusted for coach general expectancies for athletes attending camps.

Overall, the results indicated that coaches did form differential expectations for athletes based on wristband color initially; however, the differences were due to the coaches' pre-existing individual beliefs about athletes attending softball camps (i.e. responses on the general coach expectation questionnaire). After responses for the general coach expectation questionnaire were controlled for, there were no significant initial differences for coach expectations for athletes across all color groups but significant differences in coach expectations by camp end.

Expectancy Athletes: Self-Perceived Sport Competence and Motivation

Descriptive statistics for the athlete self-perception variables (i.e., perceived personal sport competence, sport motivation) in this study are presented in Table 6. Examination of Table 6 reveals that athletes, on average, rated intrinsic motivation most highly among motivational types relative to their softball participation. The mid-point rating for the 7-point Likert scale is 4, so

intrinsic motivation to play softball figured substantively both initially and after camp for these athletes even though the average ratings were somewhat lower than the highest value alternative in the measurement scale (i.e., 7). Given the nature of the summer softball camps, it is interesting to note in Table 6 that, descriptively, intrinsic motivation to accomplish was, on average, the highest rated motivational type by athletes both initially and after the camp (Initial $M = 5.80$; Final $M = 5.92$).

Table 6

Descriptive Statistics for Athlete Self-perception Variables

	Initial		*Final*		*d*
Variable	M	SD	M	SD	
Perceived Sport Competence*	3.16	0.64	3.37	0.56	.35
Motivation					
To Know	5.73	0.90	5.77	1.17	.04
To Accomplish	5.80	1.11	5.92	1.14	.11
To Experience Stimulation	5.62	0.95	5.67	1.02	.05
External Regulation	4.33	1.26	4.27	1.19	.05
Introjected Regulation	4.02	1.19	4.06	1.33	.03
Identified Regulation	4.77	1.08	4.95	1.21	.16
Amotivation	1.37	0.72	1.41	0.74	.05

*Note: PSPP-SC minus one item

The athletes scoring in upper third and lower third on final coach expectation question responses were filtered into 'high' ($n = 30$) and 'low' ($n = 28$) expectancy groups. Split plot ANOVAs were conducted to compare perceived sport competence and motivation measures across athletes identified as high and low expectancy athletes. Table 7 shows the group means for both low expectancy athletes and high expectancy athletes for perceived sport competence and each type of motivation for both pre-camp and post-camp time frames. Effect sizes representing the standardized difference between groups (high expectancy – low expectancy) in sport competence and motivational types at the beginning and end of camp are also presented in this table. Inspection of these values reveals, descriptively, small-to-moderate magnitude effects for enhanced motivation to know, experience stimulation and introjected regulation for high expectancy athletes relative to the low expectancy athletes as well as relatively attenuated gains in sport competence and amotivation for participating in softball.

Table 7

Expectancy Group SMS and Perceived Sport Competence Means and Effect Sizes

Construct	*Initial*		*Final*		*d*
	Low Exp. (*n* = 28)	High Exp. (*n* = 30)	Low Exp. (*n* = 28)	High Exp. (*n* = 30)	
Perceived Sport Competence	3.18	3.33	3.39	3.34	-.31
Motivation					
To Know	5.54	5.85	5.46	6.08	.33
To Accomplish	5.51	6.00	5.67	6.11	-.04
To Experience Stimulation	5.46	5.63	5.36	5.79	.28
Identified Regulation	4.60	4.87	4.79	5.22	.15
Introjected Regulation	3.88	4.35	3.74	4.62	.35
External Regulation	4.01	4.55	3.98	4.71	.15
Amotivation	1.22	1.40	1.43	1.42	-.33

Note: SMS = Sport Motivation Scale; Cohen's *d* represents the standardized difference between groups (high expectancy – low expectancy) in strength of feeling for the types of motivation across the camp.

A significant time main effect for perceived sport competence was observed, $F(1, 56) = 8.748$, $p = .005$, $\eta^2 = .135$, but the main effect for group was not significant, $F(1, 56) = .437$, $p = .511$, $\eta^2 = .008$. The interaction between the group (high or low expectancy athletes) and time was also not significant, $F(1, 56) = 1.352$, $p = .250$, $\eta^2 = .024$. In summary, both the high and low expectancy athletes tended to experience a significant increase in perceived personal sport competence across the course of the camp; the extent of change, however, did not differ significantly across expectancy groups. The time effect is illustrated in Figure 3.

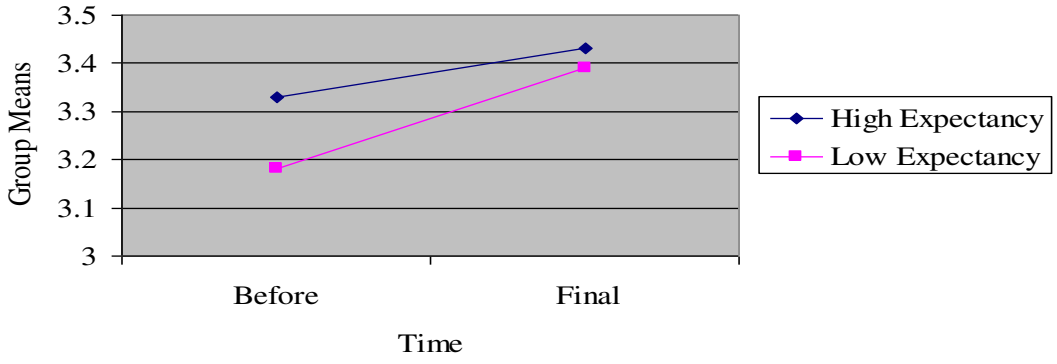

Figure 3. Perceived sport competence levels of high and low expectancy athletes pre- to post-camp.

Intrinsic Motivation. For motivation to experience stimulation, a nonsignificant time main effect was observed, $F(1, 56) = .044$, $p = .834$, $\eta^2 = .001$. Also, the group effect was

nonsignificant main effect between groups, $F(1, 56) = 4.458$, $p = .232$, $\eta^2 = .025$. A nonsigificant interaction between group (high or low expectancy athletes) and time was also evident, $F(1, 56) = 1.595$, $p = .212$, $\eta^2 = .028$.

For motivation to know, a nonsignificant time main effect emerged, $F(1, 56) = .558$, $p = .458$, $\eta^2 = .010$. A nonsignificant main effect was obtained for groups, $F(1, 56) = 3.515$, $p = .066$, $\eta^2 = .059$. Also, a nonsignificant group by time was obtained, $F(1, 56) = 2.347$, $p = .131$, $\eta^2 = .040$.

For motivation to accomplish, a nonsignificant time main effect observed, $F(1, 56) = 1.095$, $p = .300$, $\eta^2 = .019$. A nonsignificant main effect was obtained for groups, $F(1, 56) = 3.056$, $p = .086$, $\eta^2 = .052$. Also, a nonsignificant group by time was obtained, $F(1, 56) = .042$, $p = .839$, $\eta^2 = .001$.

Extrinsic Motivation. For external regulation, a nonsignificant time main observed, $F(1, 56) = .426$, $p = .517$, $\eta^2 = .008$. A significant main effect for groups, $F(1, 56) = 4.566$, $p = .037$, $\eta^2 = .075$. Also, a nonsignificant group by time was observed, $F(1, 56) = .843$, $p = .363$, $\eta^2 = .015$. For introjected regulation, a nonsignificant time main effect observed, $F(1, 56) = .276$, $p = .602$, $\eta^2 = .005$. A significant main effect was observed for groups, $F(1, 56) = 5.464$, $p = .023$, $\eta^2 = .089$. A nonsignificant group by time was observed, $F(1, 56) = 2.512$, $p = .119$, $\eta^2 = .043$. For identified regulation, a significant time main effect was observed, $F(1, 56) = 5.233$, $p = .026$, $\eta^2 = .085$. A nonsignificant main effect for groups, $F(1, 56) = 2.146$, $p = .149$, $\eta^2 = .037$. Also, a nonsignificant group by time was observed, $F(1, 56) = .478$, $p = .492$, $\eta^2 = .008$.

Amotivation. For amotivation, a nonsignificant time main effect was observed, $F(1, 56) = 2.176$, $p = .146$, $\eta^2 = .037$. A nonsignificant main effect for groups, $F(1, 56) = .249$, $p = .619$, $\eta^2 = .004$. A nonsignificant main effect group by time was also observed $F(1, 56) = 1.572$, $p = .215$, $\eta^2 = .027$. Hypothesis 3 remained partially tenable.

Perceived Sport Competence and Motivation Constructs

Pearson correlation coefficients were calculated to test hypotheses 4 and 5. These are presented in Table 8. The commentary on these coefficients is subsequently organized under appropriate headings.

Intrinsic motivation. For motivation to accomplish nonsignificant positive associations with perceived sport competence were observed in data obtained at both initial and final data collection time points (Initial $r = .11$; Final $r = .03$). Motivation to know also returned nonsignificant associations with sport competence (Initial $r = .19$; Final $r = .04$). Motivation to experience stimulation showed a significant positive association in the initial data collection ($r = .31$), but was nonsignificant by the final data collection ($r = .14$). Although 5 - 6 correlations were inferentially nonzero, the positive direction of all observed correlations is broadly consistent with the contention of hypothesis four.

Extrinsic Motivation. Nonsignificant correlations were observed between identified regulation and sport competence in both initial and final data. The coefficient in the data obtained at the beginning of camp was positive ($r = .15$) whereas the coefficient at the end of camp data was negative and miniscule ($r = -.01$). These results provide no support for hypothesis five. Introjected regulation showed a significant positive correlation of moderate magnitude in the data obtained at the beginning of camp ($r = .41$), and a weaker nonsignificant positive correlation at the end of camp ($r = .11$). The positive direction of these correlations, regardless of being inferentially nonzero or not, is inconsistent with hypothesis five contentions. External

regulation was positively associated with sport competence at both time points, however, neither was significant. This finding is also inconsistent with hypothesis five contentions.

Amotivation was significantly and negatively associated with sport competence at both initial (r = -.35) and final (r = -.43) time points. This finding is consistent with hypothesis five contentions.

Expectancy Level and Perceived Coaching Behaviors

Descriptive statistics for the athlete perceptions of coach behavior variables are presented in Table 9. Examination of Table 9 reveals the coaching behavior of "Corrective Instruction and Punishment" being rated by the athletes well below the mid-point for the scale (mid-point = 4) both in initial camp ratings of coach behavior (M = 1.34) and at the final rating of coach behavior at the end of camp (M = 1.49) indicating that the athletes perceived little of this behavior from coaches at either time point. "Encouragement" was the coaching behavior most frequently perceived by the athletes at both initial (M = 5.64) and final (M = 5.61) time points. The effect sizes between the two time periods are typically trivial-to-small, although small-to-moderate sized effects were observed for some behaviors (e.g., in keeping control and general communication behaviors) across the camp.

Table 9

Descriptive Statistics for Initial and Final Athlete Perceptions of Coach Behavior Variables

	Initial		*Final*		*d*
CBAS-PBS Subscale	Mean	SD	Mean	SD	
Reward	5.15	1.46	5.56	1.51	.28
Non-reward	2.88	1.45	2.77	1.50	-.07
Encouragement after mistakes	4.94	1.57	5.25	1.42	.21
Corrective instruction	4.67	1.75	5.10	1.68	.25
Punishment	1.63	1.28	1.55	0.97	-.07
Corrective instruction/punishment	1.34	0.84	1.49	0.98	.16
Ignore mistakes	2.90	1.58	2.89	1.43	.01
Keeping Control	3.44	1.84	4.15	1.71	.40
Instructions	4.81	1.69	5.27	1.68	.27
Encouragement	5.64	1.47	5.61	1.59	.02
Organization	5.09	1.59	5.25	1.39	.11
General communication	4.61	1.74	5.18	1.63	.34

Table 8

Pearson Correlations for Perceived Sport Competence & Motivation

Variable	PSPP-SC	To Accomplish	To Know	To Stimulate	Intro. Regulation	Ident. Regulation	Ex. Regulation	Amotivation
Initial data collection time point								
PSPP-SC	1.0							
To Accomplish	.11	1.0						
To Know	.19	.72**	1.0					
To Stimulate	.31**	.50**	.63**	1.0				
Introjected Reg.	.41**	.21	.22*	.36**	1.0			
Identified Reg.	.15	.58**	.40**	.27*	.37**	1.0		
External Reg.	.21	.42**	.20	.14	.37**	.70**	1.0	
Amotivation	-.35**	-.27*	.32**	-.27*	.01	-.08	.04	1.0
Final data collection time point								
PSPP-SC	1.0							
To Accomplish	.03	1.0						
To Know	.04	.89**	1.0					
To Stimulate	.14	.62**	.59**	1.0				
Introjected Reg.	.11	.21	.29**	.34**	1.0			
Identified Reg.	-.01	.52**	.64**	.34**	.55**	1.0		
External Reg.	.17	.36**	.48**	.27*	.56**	.69**	1.0	
Amotivation	-.43**	-.36*	-.29**	.43**	-.14	-.17	-.22*	1.0

Note: PSPP-SC = Perceived Self Perception Profile-Sport Competence minus one item

* $p < .05$ (2-tailed)

** $p < .01$ (2-tailed)

High and low expectancy group means for all coaching behavior assessment system (CBAS-PBS) questions (initial and final) is presented in Table 10. The standardized difference between groups (high expectancy – low expectancy) in perceptions of coach behavior at the beginning and end of camp are largely trivial-to-small in magnitude with small-to-moderate effect sizes being observed for perceptions of corrective instruction and keeping control behaviors (relatively little change for the low expectancy athletes but more substantive increases perceived by the high expectancy athletes).Results of inferential comparison of these means via split plot ANOVA analyses are subsequently presented under headings for each perceived behavior category.

Table 10

High/Low Expectancy Group Means and Standardized Effect Sizes

	Initial		*Final*		*d*
CBAS-PBS Question	Low Exp. (*n* = 28)	High Exp. (*n* = 30)	Low Exp. (*n* = 28)	High Exp. (*n* = 30)	
1. Reward	5.18	4.93	5.43	5.66	.31
2. Non-reward	3.00	3.37	2.89	2.87	-.25
3. Encouragement after mistakes	4.93	4.90	5.21	5.33	.10
4. Corrective instruction	4.75	4.73	4.82	5.40	.38
5. Punishment	1.68	1.73	1.57	1.57	-.04
6. Corrective instruction & punishment	1.18	1.53	1.50	1.67	-.21
7. Ignore mistakes	3.21	3.13	3.00	3.10	.11
8. Keeping control	3.46	3.83	3.79	4.87	.39
9. Instructions	4.61	5.03	5.04	5.43	-.02
10. Encouragement	5.21	5.63	5.64	5.33	-.46
11. Organization	4.79	4.93	5.11	5.17	-.05
12. General Communication	4.11	5.10	4.64	5.30	-.18

Note: CBAS-PBS = Coaching Behavior Assessment System Perceived Behavior Scale; Cohen's *d* represents the standardized difference between groups (high expectancy – low expectancy) in perceptions of coach behavior at the beginning and end of camp.

Reward. A nonsignificant time by expectancy group interaction on perceived coach reward behavior was observed, $F(1, 56) = 2.512$, $p = .119$, $\eta^2 = .043$. A nonsignificant time main effect was also observed, $F(1, 56) = .276$, $p = .602$, $\eta^2 = .005$. There was, however, a significant expectancy group main effect for reward behavior during the camp, $F(1, 56) = 5.464$, $p = .023$, $\eta^2 = .089$. Overall, both groups perceived how reward was given similarly, but high expectancy athletes perceived this behavior to occur more often by the end of camp.

Non-reward. A nonsignificant time by expectancy group interaction observed on athlete perceptions of coach non-reward behavior, $F(1, 56) = 1.202$, $p = .278$, $\eta^2 = .021$. A nonsignificant time main effect was observed for non-reward, $F(1, 56) = 2.87$, $p = .096$, $\eta^2 = .049$ as well as a nonsignificant group main effect, $F(1, 56) = .203$, $p = .654$, $\eta^2 = .004$.

Encouragement after mistakes. A nonsignificant interaction between time and expectancy level was observed for encouragement after mistakes, $F(1, 56) = .272$, $p = .604$, $\eta^2 = .005$. A significant time main effect on this variable, however, was observed, $F(1, 56) = 6.443$, $p = .014$, $\eta^2 = .103$. No significant group main effect was observed, $F(1, 56) = .16$, $p = .898$, $\eta^2 = .000$. This behavior was perceived differently by the end of camp then from initial data collection by both groups. Coaches were perceived to provide higher levels of encouragement after mistakes following camp compared to the early camp data collection on this variable.

Corrective Instruction. A nonsignificant interaction between time and expectancy level on corrective instruction was observed, $F(1, 56) = 3.106$, $p = .083$, $\eta^2 = .053$, although a small-to-moderate interaction effect size was observed. A significant main effect for time was observed for corrective instruction, $F(1, 56) = 4.775$, $p = .033$, $\eta^2 = .079$. There was no significant group effect, $F(1, 56) = .520$, $p = .474$, $\eta^2 = .009$. In summary, perceptions of an increase in corrective instruction increased significantly over time for both groups, with a trend being evident for low expectancy athletes to perceive relatively little change in this behavior over time relative to what high expectancy athletes perceived.

Punishment. A nonsignificant time by expectancy group interaction effect for perceived punishment behavior was observed, $F(1, 56) = .032$, $p = .858$, $\eta^2 = .001$. A nonsignificant main effect for time, $F(1, 56) = .684$, $p = .412$, $\eta^2 = .012$ and expectancy group effect, $F(1, 56) = .008$, $p = .928$, $\eta^2 = .000$, was also observed.

Corrective instruction and punishment. A nonsignificant time by expectancy group interaction effect for perceived corrective instruction and punishment behavior by the coach was observed, $F(1, 56) = .313$, $p = .578$, $\eta^2 = .006$. Also observed was a nonsignificant main effect for time, $F(1, 56) = 1.832$, $p = .181$, $\eta^2 = .032$, and expectancy group effect, $F(1, 56) = 1.854$, $p = .179$, $\eta^2 = .032$.

Ignoring mistakes. A nonsignificant time by expectancy group interaction for perceived ignoring mistake behavior by the coach was observed, $F(1, 56) = .222$, $p = .639$, $\eta^2 = .004$. Also observed was a nonsignificant main effect for time, $F(1, 56) = .416$, $p = .522$, $\eta^2 = .007$, and expectancy group effect for ignoring mistakes behavior, $F(1, 56) = .001$, $p = .979$, $\eta^2 = .000$.

Keeping control. A nonsignificant time by expectancy group interaction for keeping control behavior by the coach was observed, $F(1, 56) = 1.650$, $p = .204$, $\eta^2 = .029$. A significant main effect, however, was observed for time, $F(1, 56) = 5.976$, $p = .018$, $\eta^2 = .096$, and expectancy group effect, $F(1, 56) = 4.423$, $p = .040$, $\eta^2 = .073$. In summary, there was a slight difference in perceptions of the keeping control behavior by coaches at the two time points, and between high and low expectancy athletes. High expectancy athletes perceived this behavior to occur slightly more often by the end of camp.

Instructions. A nonsignificant time by expectancy group interaction for perceived coach instruction behavior, $F(1, 56) = .007$, $p = .935$, $\eta^2 = .000$. A significant main effect for time was observed for instruction, $F(1, 56) = 5.565$, $p = .022$, $\eta^2 = .090$, but no significant expectancy group main effect, $F(1, 56) = 1.012$, $p = .319$, $\eta^2 = .018$. Both groups perceived instruction behavior similarly both initially and at the end of camp, and both groups experienced an increase in this behavior by the end of camp.

Encouragement. A nonsignificant time by expectancy group interaction for perceived encouragement behavior by the coach was observed, $F(1, 56) = 3.873$, $p = .054$, $\eta^2 = .065$. Also observed was a nonsignificant main effect for time, $F(1, 56) = .121$, $p = .730$, $\eta^2 = .002$, and expectancy group effect, $F(1, 56) = .021$, $p = .885$, $\eta^2 = .000$.

Organization. A nonsignificant time by expectancy group interaction effect for perceived organization behavior by the coach was observed, $F(1, 56) = .046$, $p = .830$, $\eta^2 = .001$. Also observed was a nonsignificant main effect for time, $F(1, 56) = 1.842$, $p = .180$, $\eta^2 = .032$, and expectancy group effect, $F(1, 56) = .082$, $p = .775$, $\eta^2 = .001$.

General communication. A nonsignificant time by expectancy group interaction for coach general communication behavior was observed, $F(1, 56) = 1.018$, $p = .317$, $\eta^2 = .018$. A significant main effect for time, however, was observed for this variable, $F(1, 56) = 4.891$, $p = .031$, $\eta^2 = .080$, although not for expectancy group effect, $F(1, 56) = 3.817$, $p = .056$, $\eta^2 = .064$. Overall, both groups perceived general communication to have increased from beginning to end, but there was not a perceived difference between the two groups in how often general communication was used.

In summary, the two groups (low v. high expectancy) viewed how they were rewarded by coaches similarly, with the high expectancy athletes perceiving this behavior more often than low expectancy athletes by the end of camp. This finding, while small, is an interesting finding, and provides some support for the research on the Self-Fulfilling Prophecy. Encouragement after mistakes and corrective instruction was perceived by both groups relatively the same initially, but post camp, showed both groups of athletes perceiving the use of both behaviors differently. There was also a slight difference in perception of keeping control between the two groups both initially and post-camp and high expectancy athletes perceived the coaches as keeping control more often than the low expectancy athletes by the end of camp. General communication and giving instructions was perceived similarly by both groups from beginning to end, but there was an increase in both of these behaviors by both groups by the end of camp.

Exploratory Analysis of Coaching Behavior

Eight coaches averaging in age of 42.7 years participated in this study. Three females and five males ranging in playing experience from no playing experience to Division I college softball. Coaching experience ranged from recreational league to the Division I level. Descriptive statistics for the coaches are reported in Table 2. Because of the diversity among the coaches, data from each individual coach was examined to see how all athletes in their groups rated the coach on the questions on the Coaching Behavior Assessment System Perceived Behavior Scale (Smith, Smoll, & Curtis, 1979). Table 11 shows the mean scores obtained from each athlete in each of the coaches' groups for each question on the CBAS-PBS questionnaire.

Descriptively, athletes perceived little to no change by individual coaches, or a slight increase in mean scores from start to finish. There was no descriptive difference among the coaches in terms of exhibiting positive or negative coaching behaviors more often throughout the course of the study, despite differences in coaching experience or playing experience. Regardless of the level of softball at which the coaches actually coached, there were no perceived differences in behavior among all athletes.

Table 11
Coach Behavior Assessment System Perceived Behavior System Questions by Coach

	Coach ID							
CBAS-PBS Question	1	2	3	4	5	6	7	8
Reward								
Initial *(M)*	4.91	6.46	4.11	5.30	3.82	4.82	5.60	6.00
Final *(M)*	4.64	6.64	5.56	6.10	3.64	5.64	5.90	6.42
Non-reward								
Initial	3.00	1.64	3.56	2.40	4.64	2.82	2.90	2.25
Final	3.18	2.00	3.33	2.40	4.36	2.36	2.70	2.00
Encouragement Final Mistakes								
Initial	3.36	6.18	4.44	5.50	3.55	5.36	5.20	5.83
Final	4.46	6.36	4.78	5.90	3.81	5.27	5.50	5.92
Corrective Instruction								
Initial	4.36	4.45	4.33	4.90	3.09	5.36	4.70	6.00
Final	5.18	5.45	4.67	5.90	3.55	5.73	5.20	5.17
Punishment								
Initial	2.09	1.18	2.78	1.60	1.45	1.64	1.30	1.25
Final	1.46	1.55	1.78	1.40	1.64	2.00	1.60	1.08
Corrective Instruction & Punishment								
Initial	1.00	1.09	1.89	1.20	1.45	1.64	1.30	1.25
Final	1.27	1.45	1.89	1.50	1.55	1.27	2.00	1.67
Ignoring Mistakes								
Initial	2.27	2.73	3.56	2.70	4.82	2.64	2.50	2.17
Final	2.36	2.73	3.67	1.90	4.64	3.00	2.60	2.33
Keeping Control								
Initial	3.36	3.36	3.33	3.30	3.36	3.73	4.20	3.00
Final	3.73	4.00	4.22	4.30	4.27	4.73	4.00	4.00
Instructions								
Initial	4.91	4.82	4.44	5.00	3.45	5.18	4.90	5.67
Final	5.36	5.45	4.44	6.00	3.55	6.00	5.30	5.75
Encouragement								
Initial	5.09	6.64	5.56	6.40	3.82	5.55	5.80	6.33
Final	5.46	5.91	5.22	6.40	4.00	5.55	6.20	6.17
Organization								
Initial	5.18	6.18	4.44	4.80	3.36	5.64	5.10	5.83
Final	6.00	5.73	4.78	5.90	3.82	5.09	4.90	5.75
General Communication								
Initial	3.46	5.45	5.89	4.50	2.64	4.45	5.50	5.25
Final	5.00	6.45	5.33	4.90	3.18	5.09	5.60	5.92

CHAPTER 4

DISCUSSION

The primary purpose of this study was to examine the self-fulfilling prophecy in the sport setting. In particular, the study aimed at if coaches formed expectations about athlete's performance levels that led to differential treatment of these athletes based on the expectations formed. A secondary purpose was to examine the effects of differential treatment by the coaches on the athletes' motivation to play softball. Orlick and Botterill (1975) and Seefeldt, Ewing, and Walk (1992, as cited in Hedstrom & Gould, 2004) included lists of athlete reasons for sport termination. Poor coaching behavior was among the top five reasons for dropping out of a sport in both studies. Some research has shown that if coaching behavior does not drive athletes away from a sport, it can possibly affect the quality of performance and experience in sport participation for an athlete. This concept is part of the self-fulfilling prophecy (Horn, Lox, & Labrador, 1998).

Horn (1984) and Rejeski, Darracott, and Hutslar (1979) have conducted extensive research on the self-fulfilling prophecy (SFP) in the sport setting, and have shown a possible link between coaching behavior and differential treatment towards athletes. In both studies, coaches were asked to note what kind of expectation the coach had for the athlete in terms of playing ability. Coaches sometimes made the assumption that certain athletes could not be expected to perform well, and therefore the coach had low expectations for these athletes. Coaches also assumed that other athletes can perform very well, resulting in holding high expectations for these particular athletes. Coaches made their assumptions based upon the best available information at the time (Horn et al., 1998). Horn (1984) and Rejeski et al. (1979) have shown partial support for the SFP by showing that in some instances, coaches have treated athletes labeled as 'high expectancy' athletes differently then those labeled 'low expectancy' athletes. For the self-fulfilling prophecy portion of this study, an attempt to create an environment that would aid in the coaches forming expectations about the athletes' performance ability, the athletes were assigned to colored groups associated with the Amateur Softball Association (ASA). Coaches' expectations for individual athletes were measured through an expectation questionnaire designed specifically for this study.

Intrinsic motivation was also a matter of interest in this study. Athletes who are more intrinsically motivated to play a sport have been found to practice more, exert more effort when practicing or playing, and enjoy the sport more than athletes who are more extrinsically motivated (Ommundsen, Roberts, & Kavussanu, 1998). Since there are many benefits for higher levels of intrinsic motivation and sport participation, this study was aimed at finding out if coaching behaviors affected athletes' intrinsic motivation to play softball. While intrinsic motivation seems to be the strongest predictor of enjoyment and participation levels, individuals also need some higher levels of certain extrinsic motivation (such as interjected regulation) as well (Vallerand et al., 1998). Athletes' motivation levels were measured in this study at both inital and final time points. Based on the Cognitive Evaluation Theory (Deci & Ryan, 1985), one of the two main determinants of intrinsic motivation levels is the extent to which an individual feels competent about a specific discipline. The more competent an individual feels about the activity they are participating in, the more intrinsically motivated they was to continue participation. For this study, athletes perceived self competence in the sport domain was also measured at the beginning of the study and post-study.

It was first hypothesized that coaches would form different expectations for athletes based on their group membership and wristband color. Results initially indicated that coaches did form different expectations based on athlete wristband color and group membership. However, once the coaches' individual general expectations (pre-existing beliefs) about athletes attending camps were controlled for, there appeared to be no differential expectations based on the color of wristband the athletes were wearing. The coaches in this study had pre-existing beliefs about athletes who attend summer softball camp.

One reason the coaches did not form expectations based on wristband color could be that the coaches did not make the connection between the Amateur Softball Association (ASA, appendix L) classifications and the wristband colors. In this study, an attempt was made to create an environment that would allow the coaches to form expectations without providing false information about the athletes. To create this environment, ASA color classifications that are used to rank American softball teams were used through the wristbands the athletes were asked to wear during camp. The color classifications from the ASA may not be as widely recognized by softball coaches around the country, or at least among the coaches working at this camp, as initially thought. The manipulation was intended to play off the ASA color scheme to see if that information would be seized upon (and hence bias expectations) in the absence of more substantive information to base expectations upon.

The first stage of the self-fulfilling prophecy states that people form expectations based upon the best available information available at the time (Horn, Lox, & Labrador, 1998). In this study, the best available evidence seems to have been the coaches' individual beliefs. There was not enough information provided initially about the athletes that would have given the coaches something other than their own beliefs to form an expectation. The coaches were not supplied with the athletes' personal information (e.g., awards, accomplishments, age, softball experience) prior to filling out the first expectation questionnaire about the individual athletes. The coaches were only allowed to view a picture of the athlete as they answered the first expectancy questionnaire. The second expectancy questionnaires was completed a little more than two hours later after the coaches had the opportunity to see athletes performing basic skills in the initial two hour camp practice. The coaches may have needed more exposure to the athletes' before being arriving at expectation ratings differing from those provided on the initial questionnaire.

Most research on the SFP has been conducted over the course of an entire playing season or during a season's worth of competitive practice (Horn, 1984; Sinclair & Vealey, 1989). This study was conducted during a summer camp that only lasted five days. Camps are typically designed to include large amounts of instruction and feedback in a more positive setting than practice or a season. Coaches who may have normally formed expectations not based on pre-existing beliefs in a different setting (such as their own team's practices) may not have been in the proper mind set to form unbiased expectations at a camp. Five days may not have been an appropriate amount of time for substantial impressions and expectations for individual athletes to be formed as well.

The second hypothesis stated that coaches would form an initial expectation based on wristband color, but by the end of camp there would be no difference between groups. Since the first hypothesis was not found to be tenable (i.e., an initial bias in expectation was not observed), the second hypothesis could not be tested. The assumption for this hypothesis was that if coaches did initially form expectations, that they would change them by the end of camp based on the more reliable information they received about the athletes (Shavelson, Cadwell, & Izu, 1977).

The third hypothesis for the study stated that athletes labeled as "high expectancy" at the end of camp would show an increase in perceived sport competence levels and motivation levels pre- to post-camp whereas, athletes labeled as "low expectancy" at the end of camp would show a decrease in perceived sport competence and motivation levels. A significant increase in perceived sport competence was observed among both high and low expectancy athletes across time, and that increase was not dependent upon their expectancy grouping. Descriptively, however, the standardized change differences across groups indicated that the high expectancy athletes experienced relatively attenuated gains in sport competence across the camp compared to the low expectancy athletes.

This finding shows no support for the hypothesis because low expectancy athletes showed an increase rather than a decrease in perception of competence. This is, however, a positive finding. Deci and Ryan's (1998) Cognitive Evaluation Theory (CET) is based on the belief that perceived competence is a determinant of intrinsic motivation. These increases in perceived competence levels could potentially increase intrinsic motivation for the activity. However, according to Horn et al.'s (1998) contentions on the self-fulfilling prophecy in sport, coaches treat athletes differently based on the expectations they have formed for that athlete. Studies in the SFP have shown differential treatment can have a potentially negative effect on athletes perceived competence levels (Jussim, Soffin, Brown, Ley, & Kohlhepp, 1992). Because both high and low expectancy athletes showed an increase in competence levels, then either the coaches were not treating the two expectancy groups differently, or coaching behaviors were not affecting the athletes negatively within the short duration of the camp. A third reason could be that the coaches were behaving appropriately toward the athletes, and therefore behaviors increased perceived competence levels. More research needs to be conducted in this particular area to draw a clearer conclusion.

Intrinsic and extrinsic motivation exists on a continuum ranging from amotivation, external regulation, introjected regulation, identified regulation, and intrinsic motivation (Vallerand & Fortier, 1998). This study showed that for motivation types, there were no significant changes in intrinsic motivation (i.e. to know, to stimulate, to accomplish) which offers no support for the hypothesis. The quality of intrinsic motivation was reported relatively high for both groups both initially and after, so no change could be considered a positive finding. Upon closer observation, there was a small to moderate magnitude effect for enhanced motivation to know, experience stimulation, and introjected regulation for high expectancy athletes. Low expectancy athletes did not have as large of a magnitude effect, but there were gains in sport competence. Although these observations are based on descriptive results only, this is an interesting outcome that deserves further attention. One purpose of this study was to show if perceived sport competence levels could be increased then intrinsic motivation could be increased, meaning reasons to participate in softball could be more intrinsically inclined. Even though perceived competence levels did increase, intrinsic motivation could not be increased inferentially by the nature of this study, yet may have shown a tendency for more significant gains.

Both groups did, however, show an increase in identified regulation, which is considered one of the more self-determined levels of extrinsic motivation (Vallerand et al., 1998). While it was hypothesized that low expectancy athletes would show a decrease in intrinsic motivation, an increase in identified regulation was observed. This is also an encouraging finding given the self-determined nature of identified regulation. The athlete chooses to participate in an action because she deems the action as valuable to herself even though the action may not be pleasant. Increases in identified regulation may help to lead to more intrinsically motivated decisions over time.

Another point of interest is the descriptive change score effect size for introjected regulation (d = .35). The high expectancy athletes appear to be changing differently than the low expectancy athletes. While this finding was not significant, it is still a note for future research. Introjected regulation is the type of motivation that leads to action based on memories from past external events (Vallerand, & Fortier, 1998). High expectancy athletes also experienced a descriptive only increase in this type of motivation while low expectancy athletes experienced a slight descriptive decrease. A possible explanation for one group changing differently from the other may be due to differing athlete perceptions of coaching behaviors across the two groups. As discussed later in this section, the high expectancy athletes perceived coaches to exhibit greater use of rewarding behaviors than the low expectancy athletes. Also, the two groups perceived encouragement after mistakes, corrective instruction, keeping control, instruction, and general communication differently from the start of camp to the end. Perhaps the high expectancy athletes were exposed to more positive coaching behaviors for their actions, and therefore were motivated to continue actions based on the positive responses they had received earlier. This study did not measure to see how the two groups were exactly perceiving these behaviors (i.e. negatively or positively, what exact behaviors were occurring, or how often), and this commentary is based only on descriptive results, so a clear conclusion can not be made. More research needs to be conducted to see if there is a significant relationship between the types of behaviors being perceived and the effects on the types of motivation the athletes are experiencing.

The fourth hypothesis for this study stated that perceived competence would be positively associated with intrinsic motivation and the extrinsic identified regulation. Intrinsic motivations to know and to accomplish were positively but nonsignificantly associated with perceived competence. Intrinsic motivation to experience stimulation prior to the start of camp, however, was positively and significantly associated with perceived competence, but not significant by the end of camp. So, the hypothesis remains partially tenable in that the direction of all correlations was positive even if not all were significant. Identified regulation was also hypothesized to have a positive association with perceived competence levels because identified regulation is more self-determined type of extrinsic motivation (Vallerand & Fortier, 1998). Identified regulation, however, was not significantly associated with perceived competence at either the beginning or the end of camp. Introjected regulation showed a significant positive correlation with sport competence prior to camp, but was nonsignificant by the end of camp.

Intrinsic motivation to experience stimulation and introjected regulation had the only significant positive associations with perceived competence in this study. Vallerand et al. (1998) defined motivation to experience stimulation as performing an activity to feel sensory and aesthetic pleasure. This type of motivation is most typically associated with extreme sport activities such as sky-diving or bungee jumping. This is not the type of motivation that was expected to associate with perceived competence levels. If motivation to accomplish or motivation to know had shown a significant association with perceived competence, then a clearer conclusion could have been drawn. Athletes participating in this study ranged from ages 12 to 17 years of old. Within this age range, athletes may actually participate in sports, or in this camp, because they receive some sort of sensory or aesthetic benefit. Athletes may have been confused on the wording of the questions for this particular facet, and therefore, answers were not a clear representation of how the athletes were feeling. The athletes may have also been excited to be at camp and ready to start. Since the first measure was given prior to any camp events started, but while the athletes had already checked into camp, the girls may have been

eager to begin. This eager feeling may have been associated with stimulation at the beginning. By the end of camp, motivation to experience stimulation was nonsignificant, and the eager feelings had dissipated by then for the athletes.

Overall, hypothesis four stated that perceived competence would be positively associated with intrinsic motivation and identified regulation. The hypothesis did not differentiate among types of intrinsic motivation (i.e. to know, to stimulate, to accomplish) and the findings were mixed for the different types of more internal (i.e., intrinsic and identified regulation) motivational types. On the whole, however, the direction of association observed was positive even though not all correlations were significant. For that reason alone, the hypothesis remains partially tenable in that intrinsic motivation did tend to show a positive association with perceived sport competence.

The fifth hypothesis stated that introjected regulation, external regulation, and amotivation would be negatively associated with perceived competence levels. The results for this hypothesis were mixed, as hypothesized; amotivation was significantly and negatively associated with perceived competence. This finding is not surprising and particularly when considering the camp setting in which the study was conducted. Athletic camps are typically designed to offer positive, instructional settings that provide the athlete with opportunities to learn and grow in their sport and continue participation. This is also a positive finding in that with increased perceived competence levels, athletes did not show a decline in desire to play softball.

Contrary to hypothesis five, however, a nonsignificant positive association was observed between external regulation and sport competence. Campers are often given rewards and recognition at camps for effort, skill, etc., so it may be that direction of association may make some sense on that account. Also contrary to hypothesis five, a significant positive association between introjected regulation and perceived competence levels was observed prior to camp. This type of motivation occurs when an individual begins to internalize reasons for action, but behavior is based upon memories from past external events (Vallerand et al., 1998). Introjected regulation was hypothesized to show a negative association with perceived competence levels because it is one type of extrinsic motivation. A positive association may have occurred because the athletes may have had good memories from previous camp experiences, such as praise or instruction which made the athletes feel good about themselves. By the end of camp, the athletes may have been associating more recent experiences within the current camp. If this study had a purpose to see if athletes enjoyed the camp, this could be a positive, useful finding. For this study, however, the positive association with this type of extrinsic motivation was not expected.

The sixth, and final, hypothesis stated that high expectancy athletes would perceive coaches as providing more positive coaching behaviors compared to low expectancy athletes. Rejeski, Darracott, and Hutslar (1979) reported that for athletes who were labeled by the coaches as high expectancy athletes, received more positive reinforcement and encouragement, and low expectancy athletes received more general instruction. While neither of these behaviors can definitively be labeled as “negative” coaching behaviors, there is still a difference in how the two different expectancy athletes were being treated by the coach. Smith, Smoll, and Curtis (1979) have contributed to the study of coaching behaviors by introducing the concept that more positive coaching behaviors have more appealing results from athletes over more negative coaching behaviors. Also, when Horn, Lox, and Labrador (1998) defined the stages of the self-fulfilling prophecy for sports, they included coaches treating players labeled as high expectancy differently than lower expectancy.

The Coaching Behavior Assessment System-Perceived Behavior Scale which was created by Cumming, Smith, and Smoll (2006) was employed in this investigation to study coach behavior. The CBAS-PBS is a variation of the original Coaching Behavior Assessment System that was created by Smith et al. (1979) to code positive and negative behaviors displayed by coaches toward athletes. The positive behaviors for this questionnaire were reward, encouragement after mistakes, corrective instruction, keeping control, instructions, encouragement, organization, and general communication. The negative coaching behaviors were non-reward, punishment, corrective instruction and punishment, and ignoring mistakes.

For this hypothesis, high expectancy athletes perceived the behaviors of reward and corrective instruction occurring more often than low expectancy athletes from the beginning of camp to the end of camp. Both groups perceived the coaches rewarding differently, but by the end of camp, the high expectancy athletes recorded perceiving more of this behavior than the low expectancy athletes. The extent of corrective instruction was perceived by the groups differently, and there was a slight descriptive increase in this behavior perceived by both groups across the camp. There was a trend evident for low expectancy athletes to perceive relatively little change relative to what the high expectancy athletes perceived over time. Rejeski et al. (1979) also showed high expectancy athletes received more positive reinforcement, and Krane, Eklund, and McDermott (1991) showed high expectancy athletes received more specific and evaluative feedback. Krane et al. (1991) did not assess how athletes interpreted coach behaviors. Observers coded coaching behavior, and no information was gathered from the athletes. For the current study, high expectancy athletes may have perceived some behaviors as reward when, in fact, the behaviors were intended to convey something else. On the other hand, low expectancy athletes may have been missing behaviors that were intended to be rewarding, and therefore not experiencing as much reward as the high expectancy athletes. In order for the self-fulfilling prophecy to function, coaches must consistently convey their expectations through verbal and non-verbal behaviors. The athletes must then correctly perceive the coaches' messages in order for the athlete to confirm original expectations (Martinek, Crowe, & Rejeski, 1982). Coaches in the camp used for the current study may not have been clear in their verbal interactions, and ambiguous in their non-verbal behaviors as well.

Encouragement after mistakes was another positive behavior that was perceived the same initially by both the high and low expectancy athletes in this study, but differently by the end of camp.This behavior was also perceived to be occurring more at the end of the camp than at the beginning by both groups. Another positive behavior that both groups perceived seeing more of at the end of camp than the beginning related to behaviors intended to keep control, but the groups perceived this behavior to be occurring in different degrees with higher expectancy athletes perceiving this behavior as more salient. Giving instructions and general communication were positive behaviors that both groups perceived to a similar extent, and to a greater degree at the end of the camp than at the initial data collection. Encouragement and organization were the last two positive behaviors measured, but there was no difference in perception of this behavior or frequency from start to finish by the groups. All of these positive behaviors experienced by the athletes are typical behaviors that can be expected to occur during an instructional, summer softball camp. Coaches work these camps with a goal to teach and encourage the participants in hopes of furthering and enhancing their softball skills. The positive finding is that positive coaching behaviors were being perceived by all athletes, and these behaviors were occurring more frequently as the camp continued. The investigative hypothesis on positive coach behaviors, however, was only partially supported. Only two positive behaviors (reward and

corrective instruction) were perceived more often by the high expectancy athletes. However, since other studies have questioned rewarding behavior as occurring more often for high expectancy athletes, this is an interesting finding (Horn, 1984; Rejeski et al., 1979; Sinclair, & Vealey, 1989).

The negative behaviors that were measured were non-reward, punishment, corrective instruction and punishment, and ignoring mistakes. All of these behaviors were perceived by both groups the same, none were perceived to occur in any great degree, and none of them were perceived to change over the course of the study. This is a positive finding because athletes were not exposed to increasingly negative behaviors through the course of the camp.

Individual coach data was examined for exploratory purposes. There were many differences among the eight coaches that participated in this study. The coaches had an average age of 42.7 years between the eight of them. There were three females and five males who had all played and coached over a wide range of divisions. The least experienced coach had never played softball, yet coached recreational league. The most experienced coach played Division I level college ball and international league play, and coached Division I softball. Since each coach was so different in softball experience, there may have been a difference in how each coach was perceived by the athletes in terms of positive and negative behaviors. As shown in Table 9, all coaches showed little to no change, or a slight increase in mean scores from start to finish on the behaviors observed from the CBAS-PBS. There was no apparent difference between the coaches in terms of exhibiting positive or negative coaching behaviors more often throughout the course of the study. Future research may reveal interesting patterns according to coaches' playing experience, coaching experience, age, etc.

In summary, the main purpose of this study was to test to see if coaching behavior, as a result of a self-fulfilling prophecy, could have an effect on athletes' intrinsic motivation to continue playing softball. Previous research has shown support for coaches forming expectations about athletes, and exhibiting different types of behaviors toward the high and low expectancy athletes (Sinclair & Vealey, 1989; Krane, Eklund, & McDermott, 1991 as cited in Wayda, 1996; Martinek & Karper, 1984). A potential connection between intrinsic motivation and coaching behavior based on the Cognitive Evaluation Theory (Deci & Ryan, 1985) which a focus upon competence as one of the main determinants of intrinsic motivation was attempted to be made by the nature of this study. Amorose and Horn (2001) suggest that any event that can influence an individual's perception of competence eventually leads to a change in intrinsic motivation levels. In this study, coaching behaviors were specifically studied to see if coaches treated athletes differently based on expectations about that athletes' performance ability, and then if those different behaviors were associated with athletes' perceived competence levels about their playing ability and their intrinsic motivation to participate in softball.

Coaching behavior was not strongly associated with intrinsic motivation in this investigation. Interestingly, perceived sport competence levels did increase for both groups of athletes (high and low expectancy) from start to finish, but only intrinsic motivation to experience stimulation showed a significant increase. Coaches did not form expectations based on the expectation manipulation, but rather on preconceived personal opinions. There were some differences in perceived coaching behaviors by the labeled "high expectancy" athletes. Reward and corrective instruction were observed more often by high expectancy athletes which supports past research (Rejeski, Darracott, & Hutslar, 1979; Wayda, 1996). However, future research needs to uncover if coaching behaviors can actually have an indirect effect on intrinsic motivation.

Potential Limitations and Future Research

Although interesting findings were observed, there are limitations to this investigation. One potential limitation of this study is related to the sample of coaches used in the study. First, a small sample size of coaches and athletes were obtained to examine the hypotheses. Since only 8 coaches and 85 athletes were used in the study, the results may have been adversely affected in that such a sample size may not have provided insufficient power to effectively analyze the relationships among the variables. Though some significant effects were found between the coaches' behaviors and athletes perceived competence levels, a larger sample size for each group may provide for a more reliable examination of the relationships among the variables included in the study.

Also, the coaches were obtained from a summer softball camp located in Georgia and ranged from private instruction coaches to Division I university coaches. Thus, the results may have been affected by the types of responsibilities that coaches fulfilled at their respective institutions. An additional limitation may be related to the type of sport used in the study. Coaches were used in the study provided that their sport was girls' youth age to women's fast pitch softball. Therefore, the results may be a product of sport type or time of season. Further research needs to be conducted on varying samples of coaches and sports. The results of this study also need to be interpreted cautiously because the athletes participating for this study were all adolescent females ranging in age from 12 - 17 years old. The participant pool was selective and hence generalization to other sports, age ranges, or males should be done very cautiously. Further research needs to expand to include other age groups, different gender, and different sports.

Another limitation of this study relates to the setting in which the data were collected. The setting for this investigation was a summer camp that ran for four nights and five days. Softball seasons are usually from August through November or February through May. Five days is a short period of time compared to a playing season, and this period of time may not be long enough for coaches to form expectations, or to have those expectations conveyed sufficiently to athletes to produce manifestations of a self-fulfilling prophesy. Typical sports camps are designed to provide participants with positive, learning environments to continue softball participation out of season. Coaches who participate in camps are placed in charge of athletes they have never met and will probably not have interaction with again after the camp is finished. These athletes were not recruited by the coaches to attend their school or university, so there is no pressure to succeed in a competitive environment at a camp. The athletes that typically attend summer softball camps enjoy their sport enough to want to continue participation out of season, so intrinsic motivation levels are probably typically high already. These types of coaches and athletes may not make for an accurate sample of the population. Further research needs to include athletes with their school or league coaches during the course of an entire season.

Another potential limitation of the study was that the athletes examined did not exhibit particularly low levels of intrinsic motivation at the beginning of camp. If the athletes were already feeling self-determined in their softball participation, it would not have been possible to observe a large increase in intrinsic motivation. Increases in perceived sport competence may not have an effect on intrinsic motivation levels if they are already reasonably high and stable.

A final limitation involves the questionnaires utilized within the study, particularly the Coach Expectancy Questionnaires and the Physical Self-Perception Profile (PSPP). The Coach Expectancy Questionnaires were four to twelve item measures that were created by the researcher for this study. There is no prior psychometric evaluation of these questionnaires, and

thus they may not provide satisfactory measurement of coach expectations. Also, the PSPP used in this study was only one subscale of the entire PSPP measurement. Only six questions were used for this study to measure sport competence. Also, due to researcher error, the first question of the sport competence section was drawn from another portion of the PSPP and not relevant to this study. This question and data had to be removed from the study, leaving only five questions for the sport competence section. A better instrument to measure coaches' expectations and athletes' perceived sport competence should be developed and piloted in order to effectively analyze its relationship to coaches' behaviors toward athletes due to expectations, and perceived competence levels and intrinsic motivation, as well as to determine any differences that may exist among different levels of coaches. This question and data had to be removed from the study, leaving only five questions for the sport competence section. A better instrument to measure coaches' expectations and athletes' perceived sport competence should be developed and piloted in order to effectively analyze its relationship to coaches' behaviors toward athletes due to expectations, and perceived competence levels and intrinsic motivation, as well as to determine any differences that may exist among different levels of coaches.

In conclusion, the current study provides the first examination of the relationships among coaching behaviors as a result of expectations, perceived sport competence in athletes, and intrinsic motivation levels. It facilitates the investigation of potential variables that impact athletes' desire to continue sport participation and the effects of coaching behavior on perceived sport competence. Further research should examine the characteristics that allow coaches to form expectations about athletes' performances and the impact of these expectations on coaches' behaviors towards the athletes. Furthermore, the occurrence of the self-fulfilling prophecy also needs to be investigated further in order to better understand its impact.

Research should also explore the relationships among the variables included in this study among other populations of coaches, athletes, and sports. It would be interesting to examine whether the relationships among the variables found in the current study are different in recreational and professional coaches. It would also be interesting to investigate whether similar relationships exist among team sport and individual sport coaches, and whether there are any differences in these relationships between these two types of coaches and athletes. Also, it would be interesting to see if there would be differences between male coaches coaching male athletes, female coaches coaching female athletes, and male coaches coaching female athletes.

Lastly, research should study if the relationships among coaching behaviors from expectations, perceived sport competence, and intrinsic motivation are impacted by the number of individuals on the coaching staff, the size of the team, the type of sport, and the type of coach (assistant or head coach). The current study has provided a good basis for identifying variables that may be associated with intrinsic motivation levels in athletes, but further research needs to be conducted with coaches and other types of athletes in order to better understand the positive or negative effects on intrinsic motivation in this population.

APPENDIX A

PARENTAL CONSENT FOR MINORS

Dear Parent:

I am a graduate student under the direction of Professor Dr. Robert Eklund in the Department of Sports Psychology at Florida State University. I am conducting a research study to understand youth sport athletes' motivation to participate in softball and their beliefs about the softball camp learning experiences.

Your daughter's participation will involve wearing a colored wrist band, and having their picture taken for identification purposes, and answering a questionnaire about her personal motivations for playing softball and, her perceptions of skill learning experiences during the camp. Questionnaires will be answered once at the beginning of camp and once at the end of camp. All answers will be kept confidential and all pictures will be returned to your daughter at the end of the camp. The study will last the duration of the Higher Ground softball camp. Your daughter's participation is voluntary. If you or your daughter choose not to participate or to withdraw from the study at any time, there will be no penalty, (it will not affect your daughter's treatment or care at the camp in any way). If the results of the research study are published, your child's name will not be used. Information obtained during the course of the study will remain confidential, to the extent allowed by law. You and your daughter will be asked to sign an informed consent for participation upon arrival to camp.

Although there may be no direct benefit to your daughter, the possible benefit of your child's participation is to aid in future positive developments in the area of coaching behaviors that will benefit children and athletes in the future.

If you have any questions concerning this research study or your daughter's participation in the study, please call me at (850)445-8595 or Dr. Robert Eklund at (850)645-2909. If you have any questions about your daughter's rights as a participant in this study, or if you feel you have been place at risk, you can contact the Chair of the Human Subjects Committee, Institutional Review Board, through the Office of the Vice President for Research, at (850)644-8633

Sincerely,

Megan Matthews

I give consent for my child _____ to participate in the above study.

Parent's Name: _____
(Please Print)

Parent's Signature: _____ (Date) _____

APPENDIX B

INFORMED CONSENT FORM FOR MINORS

Softball Motivation and Perceptions of Youth Sport Camp Participation

I have been told that:
1. Megan Matthews, who is a graduate student at Florida State University, has requested my participation in a research study at Florida State.
2. The purpose of this research is to study athlete motivation levels to continue practicing their sport.
3. My participation will involve answering 2 packets containing questions about my motivation for softball, and my perceptions of softball camp learning experiences. I will also have my picture taken at the beginning of camp for identification reasons only. I will be given my picture for my personal use at the conclusion of camp. No copies will be made of my picture, and it will not be posted anywhere.
4. There are no risks or discomforts if I agree to participate in this study.
5. The possible benefits of my participation in this research study are that I may become more aware of what motivates me to play softball. I may also become more aware of how I perceive coaching instruction.
6. The results of this research study may be published, but my name or identity will not be revealed. In order to maintain confidentiality of my identity, Megan Matthews will keep all of my information in a locked file cabinet with which only she has access to. All photographs will be returned to me at the conclusion of camp.
7. I will not be paid for my participation.
8. Any questions I have about the research study or my participation in it, before or after I agree to participate, will be answered by Dr. Robert Eklund, the researcher's thesis advisor. Dr. Eklund can be reached by phone at: (850)645-2909 or by email: eklund@coe.fsu.edu . You may also contact me, Megan Matthews, at (850)445-8595 or by email: mmatthew@fsu.edu .
9. If I have any questions about my rights as a participant in this study, or if I feel I have been place at risk, I can contact the Chair of the Human Subjects Committee, Institutional Review Board, through the Office of the Vice President for Research, at (850)644-8633.

I have read the above consent form. I give my permission to have my picture taken with a digital camera. I understand that I may withdraw my consent and discontinue participation at any time without penalty or loss of benefits to which I may otherwise be entitled. In signing this consent form, I am not waiving any legal claims, rights or remedies. A copy of this consent form was offered to me.

Participant's Name (please print): _____ (Date) _____

Participant's Signature: _____ (Date) _____

APPENDIX C

LETTER OF CONSENT FOR ADULTS

Dear Coach:

I am a graduate student under the direction of Professor Dr. Robert Eklund in the Department of Educational Psychology and Learning Systems at Florida State University. I am conducting a research study to understand youth sport athletes' motivation to participate in softball and their beliefs about the softball camp learning experiences.

Your participation will involve answering a questionnaire upon arrival to camp about your general expectations of athlete skill level among participants at summer softball camp. You will be asked to fill out 3 questionnaires about individual athletes in the group of campers you most frequently interact with during daily sessions relative to your expectations of their potential as softball players. One questionnaire will be completed on the first day of camp before the first session begins, a second will be completed on the first day of camp following the first session, and a third will be completed on the last day of camp following the final session. All answers are kept confidential. Campers will *not* be aware that you are answering questions about your expectations of their softball potential. The study will last the duration of the Higher Ground softball camp. Your participation is voluntary. If you choose not to participate or to withdraw from the study at any time, there will be no penalty, (it will not affect your treatment or care). If the results of the research study are published, your name will not be used. Information obtained during the course of the study will remain confidential, to the extent allowed by law.

Although there may be no direct benefit to you, the possible benefit of your participation is to aid the development of future coaching education programs to benefit children and athletes in the future.

If you have any questions concerning this research study participation in the study, please call me at (850)445-8595 or Dr. Robert Eklund at (850)645-2909. If you have any questions about your rights as a participant in this study, or if you feel you have been place at risk, you can contact the Chair of the Human Subjects Committee, Institutional Review Board, through the Office of the Vice President for Research, at (850)644-8633

Sincerely,

Megan Matthews

I give my consent to participate in the above study.

Name: _____
(Please Print)

Signature: _____ (Date) _____

APPENDIX D

THE SPORT MOTIVATION SCALE (SMS)

Why Do You Practice Your Sport?

Using the scale below, please indicate to what extent each of the following items corresponds to one of the reasons for which you are presently practicing your sport.

	Does not correspond at all			Corresponds moderately			Corresponds exactly
1. For the pleasure I feel in living exciting experiences.	1	2	3	4	5	6	
2. For the pleasure it gives me to know more about softball.	1	2	3	4	5	6	7
3. I used to have good reasons for playing softball, but now I am asking myself if I should continue doing it.	1	2	3	4	5	6	7
4. For the pleasure of discovering new training techniques.	1	2	3	4	5	6	7
5. I don't know anymore; I have the impression that I am incapable of succeeding in softball.	1	2	3	4	5	6	7
6. Because it allows me to be well regarded by the people that I know.	1	2	3	4	5	6	7
7. Because, in my opinion, it is one of the best ways to meet people.	1	2	3	4	5	6	7
8. Because I feel a lot of personal satisfaction while mastering certain difficult techniques.	1	2	3	4	5	6	7
9. Because it is absolutely necessary to do sports I want to be in shape.	1	2	3	4	5	6	7

	Does not correspond at all			Corresponds moderately			Corresponds exactly
10. For the prestige of being an athlete.	1	2	3	4	5	6	7
11. Because it is one of the best ways I have chosen to develop other aspects of my life.	1	2	3	4	5	6	7
12. For the pleasure I feel while improving some of my weak points.	1	2	3	4	5	6	7
13. For the excitement I feel when I am really involved in softball.	1	2	3	4	5	6	7
14. Because I must play softball to feel good about myself.	1	2	3	4	5	6	7
15. For the satisfaction I experience while I am perfecting my abilities.	1	2	3	4	5	6	7
16. Because people around me think it is important to be in shape.	1	2	3	4	5	6	7
17. Because softball is a good way to learn lots of things which could be useful to me in other areas of my life.	1	2	3	4	5	6	7
18. For the intense emotions that I feel while I am playing softball.	1	2	3	4	5	6	7
19. It is not clear to me anymore; I don't really think my place is in softball.	1	2	3	4	5	6	7
20. For the pleasure that I feel while executing certain difficult movements.	1	2	3	4	5	6	7
21. Because I would feel bad if I was not taking time to practice softball.	1	2	3	4	5	6	7

	Does not correspond at all			Corresponds moderately			Corresponds exactly
22. To show others how good I am at softball.	1	2	3	4	5	6	7
23. For the pleasure I feel while learning techniques that I have never tried before.	1	2	3	4	5	6	7
24. Because it is one of the best ways to maintain good relationships with my friends.	1	2	3	4	5	6	7
25. Because I like the feeling of being totally immersed in softball.	1	2	3	4	5	6	7
26. Because I must play softball regularly.	1	2	3	4	5	6	7
27. For the pleasure of discovering new performance strategies.	1	2	3	4	5	6	7
28. I often ask myself; I can't seem to achieve the goals that I set for myself.	1	2	3	4	5	6	7

Source: Pelletier, L. G., Fortier, M. S., Vallerand, R. J., Tuson, K. M., and Briere, N. M. (1995). Toward a new measure of intrinsic motivation, extrinsic motivation, and amotivation in sports: the sport motivation scale (SMS). *Journal of Sport and Exercise Psychology, 17,* 35-53.

APPENDIX E

GENERAL COACH QUESTIONNAIRE AND DEMOGRAPHICS

Name (First, Last): _____

Gender (circle one): Male Female

Race (circle one): White/Caucasian African American Hispanic Other

Age:_____

Total years of actual softball playing experience:_____

Level of playing experience (circle all that apply):

Recreational League Junior Varsity Junior Varsity Division III College Division II

Division I Professional

Coaching Experience (circle all that apply):

Private Instruction Recreational league Junior Varsity High School Varsity

Junior College Division III college Division II college Division I college

Other: _____

Total years of coaching experience: _____

Total years of coaching experience at your highest level: _____

Are you currently coaching? YES NO

If yes, what level? _____

If no, what is your full-time occupation? _____

Please use the scale given to answer the following questions as they correspond to your assessment of softball players.

I expect I will….	Below Average			Average		Above Average	
EX. perform basic softball softball skills at a _____ level.	1	2	3	4	***5***	6	7

	Below Average			Average		Above Average	
1. Compared to all softball players, I expect most players who attend summer softball camps, in general, have a level of softball skill that is _____.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
2. Compared to all softball players, I expect players who attend summer softball camp at a **top Division I** softball program will have a level of softball skill that is _____.	**1**	**2**	**3**	**4**	**5**	**6**	**7**

3. After graduating from high school, I expect *the typical player* who has attended summer softball camps will have suit able skills and abilities to be a prospect for participation at the _____ level. *(Circle one)*

Summer Travel ball ONLY	**Junior College**	**Division III**	**Division II**	**Division I**

4. After graduating from high school, I expect *the typical* player who has attended a **top Division I** summer softball camp will have the skills and abilities to be a prospect for participation at the ____ level. *(Circle one)*

Summer Travel ball ONLY	**Junior College**	**Division III**	**Division II**	**Division I**

APPENDIX F

COACH QUESTIONNAIRE (BEFORE AND DURING)

Name (first, last): _____

Name of athlete you are evaluating: _____

Group (by wristband color) you worked the most with (circle one):

No wristband Gold Silver Red

Coach Questionnaire
The following statements will attempt to assess your expectations about certain athletes involved in this camp. The pictures provided are to help you remember the athletes you have worked with the most. Please answer all statements honestly and to the best of your ability.

Please circle to what degree the statement corresponds to your assessment of the softball player in the attached picture. Please circle only one answer.

EXAMPLE

I expect this athlete….	**Does not correspond at all**		**Corresponds moderately**			**Corresponds exactly**	
EX. will perform basic softball skills adequately.	**1**	**2**	**3**	**4**	**5**	**6**	**7**

I expect this athlete….	**Does not correspond at all**		**Corresponds moderately**			**Corresponds exactly**	
1. was able to perform basic softball skills easily.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
2. will no longer play softball after the completion of high school, if not sooner.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
3. will struggle to perform basic softball skills.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
4. was one of the best softball players at this camp.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
5. was highly motivated to continue practicing softball.	**1**	**2**	**3**	**4**	**5**	**6**	**7**

6. will experience high levels of anxiety in pressure situations.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
7. will develop appropriate decision-making skills to help her progress as a softball player.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
8. was able to perform at an advanced level of softball.	**1**	**2**	**3**	**4**	**5**	**6**	**7**

9. I expect this athlete was capable of perform successfully at the _____ level after the completion of high school *(circle one):*

Recreational Junior College Division III Division II Division I

I do not think she was able to play after high school

10. Overall, my expectations for this player are (please circle ONE answer):

1-I have no expectations
2- Low (below average skills)
3- Mixed (average skills)
4-High (above average skills)

*Please note that the wristbands the athletes are wearing are for identification purposes only.

APPENDIX G

COACH QUESTIONNAIRE (FINAL)

Name (first, last): _____

Name of athlete you are evaluating: _____

Group you worked the most with (circle one):

No wristband Gold Silver Red

Coach Questionnaire
The following statements will attempt to assess your expectations about certain athletes involved in this camp. The pictures provided are to help you remember the athletes you have worked with the most. Please answer all statements honestly and to the best of your ability.

Please circle to what degree the statement corresponds to your assessment of the softball player in the attached picture. Please circle only one answer.

EXAMPLE

I expect this athlete….	**Does not correspond at all**			**Corresponds moderately**			**Corresponds exactly**
EX. will perform basic softball skills adequately.	**1**	**2**	**3**	**4**	**5**	**6**	**7**

I expect this athlete….	**Does not correspond at all**			**Corresponds moderately**			**Corresponds exactly**
1. was able to perform basic softball skills easily.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
2. will no longer play softball after the completion of high school, if not sooner.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
3. will struggle to perform basic softball skills.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
4. was one of the best softball players at this camp.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
5. was highly motivated to continue practicing softball.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
6. will experience high levels of anxiety in pressure situations.	**1**	**2**	**3**	**4**	**5**	**6**	**7**

I expect this athlete….	Does not correspond at all					Corresponds moderately	Corresponds exactly
7. will develop appropriate decision-making skills to help her progress as a softball player.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
8. was able to perform at an advanced level of softball.	**1**	**2**	**3**	**4**	**5**	**6**	**7**

9. I expect this athlete was capable of perform successfully at the _____ level after the completion of high school *(circle one):*

Recreational Junior College Division III Division II Division I

I do not think she was able to play after high school

10. Overall, my expectations for this player are (please circle ONE answer):

1-I have no expectations
2- Low (below average skills)
3- Mixed (average skills)
4-High (above average skills)

11. In my opinion, the groups of campers were created by: (circle one)

1- Random selection
2- Skill level
3- Age
4- Wristband color

APPENDIX H

PERSONAL CORRESPONDENCE: DR. THELMA S. HORN

Subject	**Re: Graduate student help**
From	mmatthew@mailer.fsu.edu
Date	Saturday, March 3, 2007 9:46 am
To	Thelma Horn <hornts@muohio.edu>

Hi Dr. Horn, I am sorry I was not more specific with what I am trying to assess! You are correct though. For the first questionnaire, I want to find out the demographics and any pre-existing expectations about general summer softball camps that the coaches may have. For the 2nd questionnaire, this will be issued after the coaches have had a chance to look at the children and see them perform basic softball skills (briefly). This will be issued after the very first 2 hour session of camp is completed. By the time the coaches answer this 2nd questionnaire, the campers will have been divided into groups and the coaches will have been assigned to work with these groups for the duration of camp.

So, each camper's picture will be attached to the questionnaire and the coach will answer a questionnaire #2 for each camper in their group. This procedure also applies to questionnaire #3. Questionnaire #3 is assessing the coaches' expectations about individual campers at the end of camp to see if their expectations have changed. I also want to find out if they used the wristbands the children were randomly assigned to wear (different colored bands) to form any expectation about skill level. Does this help?
Thank you

Megan Matthews

Quoting Thelma Horn <hornts@muohio.edu>:

Hi Megan:
I finally had a chance to look over the questionnaires that you sent me. I do have some rather specific questions about them. That is, before I can give you feedback, I would like to know the following things:
1. For questionnaire #1, what is it exactly that you are trying to assess?
My guess is that you want to measure two things: (a) each coach's demographic background (e.g., age, gender, coaching experience, etc.); and (b) each coach's general expectancies regarding the skill level of players who will be attending this softball camp. Am I right?

2. For questionnaire #2, again, what is it that you are trying to assess? My guess (I may be wrong!) is that with this questionnaire you are trying to assess the coach's expectancies (after she/he has had some brief opportunity to observe each athlete at the camp) of the skill level and/or athletic potential of each athlete.

3. For questionnaire #3, I'm guessing that you want to assess the coach's belief at the end of camp as to what he/she thinks of each athlete's skill level and/or athletic potential. Basically,

what I'm asking you to specify for me is what specifically each of the questionnaires is designed to measure. If you can email me back with that information, I will then provide you with feedback as to "how well your questions are actually measuring what you want to measure". I know it's a complicated process to develop a good questionnaire. But, sometimes we have to do these things in order to do the kind of research we want to do. So, I don't mind giving you feedback on your work.

Thelma Horn

Thelma Horn
PHS Department
Miami University
Oxford, OH 45056
513/529-2723

APPENDIX I

THE PHYSICAL SELF PERCEPTION PROFILE (SPORT COMPETENCY)

WHAT AM I LIKE?

These are statements which allow people to describe themselves.
There is no right or wrong answers since people differ a lot.

First, decide which one of the two statements best describes you.

Then, go to that side of the statement and check if it is just "sort of true" or "really true" FOR YOU.

Really True For Me	Sort of True For Me		**EXAMPLE**		Sort of True For Me	Really True For Me
☐	☐	Some people are very competitive	**BUT**	Others are not so competitive	☐	☐

REMEMBER to check only ONE of the four boxes

Really True For Me	**Sort of True For Me**				**Sort of True For Me**	**Really True For Me**
☐	☐	Some people feel that being good at sports is vitally important to them	**BUT**	Others feel that being good at sports is not so important to them	☐	☐
☐	☐	Some people feel that they are among the best when it comes to playing sports	**BUT**	Others feel that they are not among the most able when it comes to athletics	☐	☐
☐	☐	Some people are not quite so confident when it comes to taking part in sports activities	**BUT**	Others are among the most confident when it comes to taking part in sports activities	☐	☐
☐	☐	Some people feel that they are always among the best when it comes to joining in sports activities	**BUT**	Others feel that they are not among the best when it comes to joining in sports activities	☐	☐

Really True For Me	Sort of True For Me			Sort of True For Me	Really True For Me
☐	☐	Some people are some times a little slower than most when it comes to learning new skills in a sports situation	**BUT**	Others always seem to be among the quickest when it comes to learning new sports skills	☐ ☐
☐	☐	Given the chance, some people are always among the first to join in sports activities	**BUT**	Other people sometimes hold back and are not usually among the first to join in sports	☐ ☐

Source: Fox, K.R. (1990). The physical self-perception profile manual. Northern Illinois University: Office for Health Promotion.

APPENDIX J

COACH BEHAVIOR ASSESSMENT SYSTEM-PERCEIVED BEHAVIOR SCALE

COACHING TECHNIQUES

We want to see how well you remember what kinds of things the coach you had the most contact with did. We also want to know how often your coach did things during games and camp sessions. In answering the questions, think only about the actions of the coach you had the most interactions with.

1. The first thing is called ***Reward***. Coaches reward or praise athletes when they do something well or try really hard. Some coaches give a lot of ***Reward*** while others do not. How often did your coach ***Reward*** you for good plays or effort? Circle the number that indicates how often your coach ***Rewarded*** you.

7 - Almost always
6 - Very often
5 - Quite often
4 - Sometimes
3 - Seldom
2 - Hardly ever
1 - Never

2. ***Nonreward*** is when a coach does not reward or praise an athlete after he/she makes a good play or tries hard. In other words, the coach ignores it. Circle the number that indicates how often your coach did not reward you when he/she should have.

7 - Almost always
6 - Very often
5 - Quite often
4 - Sometimes
3 - Seldom
2 - Hardly ever
1 - Never

3. Sometimes athletes mess up and make mistakes. Some coaches give a lot of ***Encouragement after Mistakes***. For example, he/she might say, "That's OK, don't worry about it. You'll get it next time." Other coaches don't give their athletes much encouragement after they make a mistake. Circle how often your coach gave you ***Encouragement after Mistakes***.

7 - Almost always
6 - Very often
5 - Quite often
4 - Sometimes
3 - Seldom
2 - Hardly ever
1 - Never

4. Another thing a coach might do after a mistake is show or tell the athlete how to do it right. For example, a football coach might tell or show a player the right way to tackle after he misses the ball carrier. This is called ***Corrective Instruction***. Circle how often your coach did this with you.

7 - Almost always
6 - Very often
5 - Quite often
4 - Sometimes
3 - Seldom
2 - Hardly ever
1 - Never

5. ***Punishment*** includes things like yelling at an athlete who has made a mistake. ***Punishment*** is also saying or doing something that hurts an athlete's feelings, or embarrass him/her. Circle how often your coach did this with you.

7 - Almost always
6 - Very often
5 - Quite often
4 - Sometimes
3 - Seldom
2 - Hardly ever
1 - Never

6. Sometimes a coach will show you how to correct a mistake, but in an unpleasant, punishing way. This is a combination of ***Corrective Instruction*** and ***Punishment***. For example, a basketball coach might angrily say, "Pass the ball, don't dribble so much, Dummy!" Circle how often your coach did this with you.

7 - Almost always
6 - Very often
5 - Quite often
4 - Sometimes
3 - Seldom
2 - Hardly ever
1 - Never

7. Sometimes when you make a mistake is made, coaches say or do nothing. They simple ***Ignore Mistakes***. Circle how often your coach did this with you.

7 - Almost always
6 - Very often
5 - Quite often
4 - Sometimes
3 - Seldom
2 - Hardly ever
1 - Never

8. The next thing is called ***Keeping Control***. Coaches do this when their athletes are misbehaving or not paying attention. For example, if athletes are fooling around, the coach might say, "Knock it off and pay attention." How often did your coach do that?

7 - Almost always
6 - Very often
5 - Quite often
4 - Sometimes
3 - Seldom
2 - Hardly ever
1 - Never

9. Some coaches do a lot of teaching. A coach might give ***Instructions,*** not because a mistake has been made, but just to show athletes how to do things correctly. How often did your coach give you ***Instructions***?

7 - Almost always
6 - Very often
5 - Quite often
4 - Sometimes
3 - Seldom
2 - Hardly ever
1 - Never

Source: Cumming, S.P., Smith, R.E., and Smoll, F.L. (2006). Athlete perceived coaching behaviors: Relating two measurement traditions. *Journal of Sport and Exercise Psychology, 28,* 205-213.

**Several of you have asked about the significance of the colored wristbands. They simply identify what group you are in.*

APPENDIX K

THE AMATUEUR SOFTBALL ASSOCIATION (ASA)

The Amateur Softball Association is a volunteer organization that was founded in 1933. The United States Olympic Committee recognized the ASA as the National Governing Body of Softball in 1979 (ASA Quick Facts, 2006). Although this organization recognizes other forms of softball (slow pitch, men and boys, and women), the interest for this paper is with the youth girls fast pitch division. The ASA organization annually registers around 83,000 girls youth fast pitch softball players, and carries 1.2 million youth girls fast pitch players alone. ASA recognizes three levels of youth girls fast pitch softball players. The lowest level of skill is recognized in the Class B fast pitch program which was represented by a black wrist band for the study, followed by Class A, represented by a silver wrist band, and the most elite skill level is recognized as the Gold level, represented by a gold wrist band. These levels established by the ASA organization are widely acknowledged and was used to create the information on campers' skill levels that the coaches will use to form expectations for the self-fulfilling prophecy.

APPENDIX L
HUMAN SUBJECTS APPROVAL

Office of the Vice President For Research
Human Subjects Committee
Tallahassee, Florida 32306-2742
(850) 644-8673 . FAX (850) 644-4392

APPROVAL MEMORANDUM

Date: 5/24/2007

To: Megan Matthews

Address: 1752 Beechwood Cir N Tallahassee, FL 32301
Dept.: EDUCATIONAL PSYCHOLOGY AND LEARNING SYSTEMS

From: Thomas L. Jacobson, Chair

Re: Use of Human Subjects in Research
The Effect of Coach Expectations on Ahtlete's Movtivation to Practice

The application that you submitted to this office in regard to the use of human subjects in the research proposal referenced above has been reviewed by the Human Subjects Committee at its meeting on 5/9/2007 2:30:00 PM. Your project was approved by the Committee.

The Human Subjects Committee has not evaluated your proposal for scientific merit, except to weigh the risk to the human participants and the aspects of the proposal related to potential risk and benefit. This approval does not replace any departmental or other approvals, which may be required.

If you submitted a proposed consent form with your application, the approved stamped consent form is attached to this approval notice. Only the stamped version of the consent form may be used in recruiting research subjects.

If the project has not been completed by 5/21/2008 you must request a renewal of approval for continuation of the project. As a courtesy, a renewal notice will be sent to you prior to your expiration date; however, it is your responsibility as the Principal Investigator to timely request renewal of your approval from the Committee.

You are advised that any change in protocol for this project must be reviewed and approved by the Committee prior to implementation of the proposed change in the protocol. A protocol change/amendment form is required to be submitted for approval by the Committee. In addition, federal regulations require that the Principal Investigator promptly report, in writing any unanticipated problems or adverse events involving risks to research subjects or others.

By copy of this memorandum, the Chair of your department and/or your major professor is reminded that he/she is responsible for being informed concerning research projects involving human subjects in the department, and should review protocols as often as needed to insure that the project is being conducted in compliance with our institution and with DHHS regulations.

This institution has an Assurance on file with the Office for Human Research Protection. The Assurance Number is IRB00000446.

Cc: Robert Eklund, Advisor
HSC No. 2007.450


Matthews 07.348.pdf

APPENDIX M

PLAYER QUESTIONNAIRE 1 AND DEMOGRAPHICS

1. Name: _____
First Last

2. Age: _____

3. Race (circle one): White/Caucasian African American Hispanic Other

4. Years you have been playing softball (circle one):

0-2 years 3-5 years 6-10 years 11+ years

5. Current team level (circle all that apply):

Recreational League	Middle school	High school (JV)	High school (V)	ASA Class B	ASA Class A

ASA Gold Summer travel ball other than ASA.

6. Years playing at this level: _____

7. Team level you have the most experience with (circle one):

Recreational League	Middle school	High school (JV)	High school (V)	ASA Class B	ASA Class A

ASA Gold Summer travel ball other than ASA.

8. Years playing at this level: _____

9. Color of wristband (circle one): Gold Silver Red None

Please list any awards you have received (maximum 10 awards):

_____

_____

_____

_____

_____

Why Do You Practice Your Sport?

Using the scale below, please indicate to what extent each of the following items corresponds to one of the reasons for which you are presently practicing your sport.

	Does not correspond at all			Corresponds moderately			Corresponds exactly
1. For the pleasure I feel in living exciting experiences.	1	2	3	4	5	6	
2. For the pleasure it gives me to know more about softball.	1	2	3	4	5	6	7
3. I used to have good reasons for playing softball, but now I am asking myself if I should continue doing it.	1	2	3	4	5	6	7
4. For the pleasure of discovering new training techniques.	1	2	3	4	5	6	7
5. I don't know anymore; I have the impression that I am incapable of succeeding in softball.	1	2	3	4	5	6	7
6. Because it allows me to be well regarded by the people that I know.	1	2	3	4	5	6	7
7. Because, in my opinion, it is one of the best ways to meet people.	1	2	3	4	5	6	7
8. Because I feel a lot of personal satisfaction while mastering certain difficult techniques.	1	2	3	4	5	6	7
9. Because it is absolutely necessary to do sports I want to be in shape.	1	2	3	4	5	6	7
10. For the prestige of being an athlete.	1	2	3	4	5	6	7

	Does not correspond at all			Corresponds moderately			Corresponds exactly
11. Because it is one of the best ways I have chosen to develop other aspects of my life.	1	2	3	4	5	6	7
12. For the pleasure I feel while improving some of my weak points.	1	2	3	4	5	6	7
13. For the excitement I feel when I am really involved in softball.	1	2	3	4	5	6	7
14. Because I must play softball to feel good about myself.	1	2	3	4	5	6	7
15. For the satisfaction I experience while I am perfecting my abilities.	1	2	3	4	5	6	7
16. Because people around me think it is important to be in shape.	1	2	3	4	5	6	7
17. Because softball is a good way to learn lots of things which could be useful to me in other areas of my life.	1	2	3	4	5	6	7
18. For the intense emotions that I feel while I am playing softball.	1	2	3	4	5	6	7
19. It is not clear to me anymore; I don't really think my place is in softball.	1	2	3	4	5	6	7
20. For the pleasure that I feel while executing certain difficult movements.	1	2	3	4	5	6	7
21. Because I would feel bad if I was not taking time to practice softball.	1	2	3	4	5	6	7

	Does not correspond at all			Corresponds moderately			Corresponds exactly
22. To show others how good I am at softball.	1	2	3	4	5	6	7
23. For the pleasure I feel while learning techniques that I have never tried before.	1	2	3	4	5	6	7
24. Because it is one of the best ways to maintain good relationships with my friends.	1	2	3	4	5	6	7
25. Because I like the feeling of being totally immersed in softball.	1	2	3	4	5	6	7
26. Because I must play softball regularly.	1	2	3	4	5	6	7
27. For the pleasure of discovering new performance strategies.	1	2	3	4	5	6	7
28. I often ask myself; I can't seem to achieve the goals that I set for myself.	1	2	3	4	5	6	7

WHAT AM I LIKE?

These are statements which allow people to describe themselves.
There is no right or wrong answers since people differ a lot.

First, decide which one of the two statements best describes you.

Then, go to that side of the statement and check if it is just "sort of true" or "really true" FOR YOU.

Really True For Me	Sort of True For Me	**EXAMPLE**		Sort of True For Me	Really True For Me
☐	☐	Some people are very competitive	**BUT**	Others are not so competitive	☐	☐

REMEMBER to check only ONE of the four boxes

Really True For Me	Sort of True For Me			Sort of True For Me	Really True For Me
☐	☐	Some people feel that being good at sports is vitally important to them	**BUT**	Others feel that being good at sports is not so important to them	☐	☐
☐	☐	Some people feel that they are among the best when it comes to playing sports	**BUT**	Others feel that they are not among the most able when it comes to athletics	☐	☐
☐	☐	Some people are not quite so confident when it comes to taking part in sports activities	**BUT**	Others are among the most confident when it comes to taking part in sports activities	☐	☐
☐	☐	Some people feel that they are always among the best when it comes to joining in sports activities	**BUT**	Others feel that they are not among the best when it comes to joining in sports activities	☐	☐
☐	☐	Some people are some times a little slower than most when it comes to learning new skills in a sports situation	**BUT**	Others always seem to be among the quickest when it comes to learning new sports skills	☐	☐
☐	☐	Given the chance, some people are always among the first to join in sports activities	**BUT**	Other people sometimes hold back and are not usually among the first to join in sports	☐	☐

APPENDIX N

PLAYER QUESTIONNAIRE 2

Name: _____
First Last

Color of armband (circle one): Gold Silver Red None

Name of the coach you have been involved with the most: _____

*****Please answer the following questions about the coach you listed as having had the most contact with in the question above*****

COACHING TECHNIQUES

We want to see how well you remember what kinds of things the coach you had the most contact with did. We also want to know how often your coach did things during games and camp sessions. In answering the questions, think only about the actions of the coach you had the most interactions with.

1. The first thing is called ***Reward***. Coaches reward or praise athletes when they do something well or try really hard. Some coaches give a lot of ***Reward*** while others do not. How often did your coach ***Reward*** you for good plays or effort? Circle the number that indicates how often your coach ***Rewarded*** you.

7 - Almost always
6 - Very often
5 - Quite often
4 - Sometimes
3 - Seldom
2 - Hardly ever
1 - Never

2. ***Nonreward*** is when a coach does not reward or praise an athlete after he/she makes a good play or tries hard. In other words, the coach ignores it. Circle the number that indicates how often your coach did not reward you when he/she should have.

7 - Almost always
6 - Very often
5 - Quite often
4 - Sometimes
3 - Seldom
2 - Hardly ever
1 - Never

3. Sometimes athletes mess up and make mistakes. Some coaches give a lot of ***Encouragement after Mistakes***. For example, he/she might say, "That's OK, don't worry about it. You'll get it next time." Other coaches don't give their athletes much encouragement after they make a mistake. Circle how often your coach gave you ***Encouragement after Mistakes***.

7 - Almost always
6 - Very often
5 - Quite often
4 - Sometimes
3 - Seldom
2 - Hardly ever
1 - Never

4. Another thing a coach might do after a mistake is show or tell the athlete how to do it right. For example, a football coach might tell or show a player the right way to tackle after he misses the ball carrier. This is called ***Corrective Instruction***. Circle how often your coach did this with you.

7 - Almost always
6 - Very often
5 - Quite often
4 - Sometimes
3 - Seldom
2 - Hardly ever
1 - Never

5. ***Punishment*** includes things like yelling at an athlete who has made a mistake. ***Punishment*** is also saying or doing something that hurts an athlete's feelings, or embarrass him/her. Circle how often your coach did this with you.

7 - Almost always
6 - Very often
5 - Quite often
4 - Sometimes
3 - Seldom
2 - Hardly ever
1 - Never

6. Sometimes a coach will show you how to correct a mistake, but in an unpleasant, punishing way. This is a combination of ***Corrective Instruction*** and ***Punishment***. For example, a basketball coach might angrily say, "Pass the ball, don't dribble so much, Dummy!" Circle how often your coach did this with you.

7 - Almost always
6 - Very often
5 - Quite often
4 - Sometimes
3 - Seldom
2 - Hardly ever
1 - Never

7. Sometimes when you make a mistake is made, coaches say or do nothing. They simple ***Ignore Mistakes***. Circle how often your coach did this with you.

7 - Almost always
6 - Very often
5 - Quite often

4 - Sometimes
3 - Seldom
2 - Hardly ever
1 - Never

8. The next thing is called ***Keeping Control***. Coaches do this when their athletes are misbehaving or not paying attention. For example, if athletes are fooling around, the coach might say, "Knock it off and pay attention." How often did your coach do that?

7 - Almost always
6 - Very often
5 - Quite often
4 - Sometimes
3 - Seldom
2 - Hardly ever
1 - Never

9. Some coaches do a lot of teaching. A coach might give ***Instructions,*** not because a mistake has been made, but just to show athletes how to do things correctly. How often did your coach give you ***Instructions***?

7 - Almost always
6 - Very often
5 - Quite often
4 - Sometimes
3 - Seldom
2 - Hardly ever
1 - Never

10. Coaches don't give ***Encouragement*** only after mistakes. They may do it any time, even when things are going well. For example, a coach may clap his/her hands and shout encouragement at any time during practices and games. How often did your coach give you ***Encouragement***?

7 - Almost always
6 - Very often
5 - Quite often
4 - Sometimes
3 - Seldom
2 - Hardly ever
1 - Never

11. The next thing is called ***Organization***. This includes things like keeping practices running smoothly, making sure the equipment is in the right place, announcing substitutions -- in other words, keeping things organized. How often did your coach do things like that?

7 - Almost always
6 - Very often
5 - Quite often
4 - Sometimes
3 - Seldom

2 - Hardly ever
1 - Never

12. Some coaches talk or joke with their athletes a lot. They might talk about school, professional sports, vacations, or about when they used to be an athlete. This is called ***General Communication***. Circle how often your coach did this with you.

7 - Almost always
6 - Very often
5 - Quite often
4 - Sometimes
3 - Seldom
2 - Hardly ever
1 - Never

Why Do You Practice Your Sport?

Using the scale below, please indicate to what extent each of the following items corresponds to one of the reasons for which you are presently practicing your sport.

	Does not correspond at all			Corresponds moderately			Corresponds exactly
13. For the pleasure I feel in living exciting experiences.	1	2	3	4	5	6	
14. For the pleasure it gives me to know more about softball.	1	2	3	4	5	6	7
15. I used to have good reasons for playing softball, but now I am asking myself if I should continue doing it.	1	2	3	4	5	6	7
16. For the pleasure of discovering new training techniques.	1	2	3	4	5	6	7
17. I don't know anymore; I have the impression that I am incapable of succeeding in softball.	1	2	3	4	5	6	7
18. Because it allows me to be well regarded by the people that I know.	1	2	3	4	5	6	7
19. Because, in my opinion, it is one of the best ways to meet people.	1	2	3	4	5	6	7

	Does not correspond at all			Corresponds moderately			Corresponds exactly
19. Because I feel a lot of personal satisfaction while mastering certain difficult techniques.	1	2	3	4	5	6	7
20. Because it is absolutely necessary to do sports I want to be in shape.	1	2	3	4	5	6	7
21. For the prestige of being an athlete.	1	2	3	4	5	6	7
22. Because it is one of the best ways I have chosen to develop other aspects of my life.	1	2	3	4	5	6	7
23. For the pleasure I feel while improving some of my weak points.	1	2	3	4	5	6	7
24. For the excitement I feel when I am really involved in softball.	1	2	3	4	5	6	7
25. Because I must play softball to feel good about myself.	1	2	3	4	5	6	7
26. For the satisfaction I experience while I am perfecting my abilities.	1	2	3	4	5	6	7
27. Because people around me think it is important to be in shape.	1	2	3	4	5	6	7
28. Because softball is a good way to learn lots of things which could be useful to me in other areas of my life.	1	2	3	4	5	6	7
29. For the intense emotions that I feel while I am playing softball.	1	2	3	4	5	6	7
30. It is not clear to me anymore; I don't really think my place is in softball.	1	2	3	4	5	6	7

	Does not correspond at all			Corresponds moderately			Corresponds exactly
31. For the pleasure that I feel while executing certain difficult movements.	1	2	3	4	5	6	7
32. Because I would feel bad if I was not taking time to practice softball.	1	2	3	4	5	6	7
33. To show others how good I am at softball.	1	2	3	4	5	6	7
34. For the pleasure I feel while learning techniques that I have never tried before.	1	2	3	4	5	6	7
35. Because it is one of the best ways to maintain good relationships with my friends.	1	2	3	4	5	6	7
36. Because I like the feeling of being totally immersed in softball.	1	2	3	4	5	6	7
37. Because I must play softball regularly.	1	2	3	4	5	6	7
38. For the pleasure of discovering new performance strategies.	1	2	3	4	5	6	7
39. I often ask myself; I can't seem to achieve the goals that I set for myself.	1	2	3	4	5	6	7

WHAT AM I LIKE?

These are statements which allow people to describe themselves.
There is no right or wrong answers since people differ a lot.

First, decide which one of the two statements best describes you.

Then, go to that side of the statement and check if it is just "sort of true" or "really true" FOR YOU.

Really True For Me	Sort of True For Me	EXAMPLE		Sort of True For Me	Really True For Me
☐	☐	Some people are very competitive	**BUT**	Others are not so competitive	☐	☐

REMEMBER to check only ONE of the four boxes

Really True For Me	**Sort of True For Me**			**Sort of True For Me**	**Really True For Me**
☐	☐	Some people feel that being good at sports is vitally important to them	**BUT**	Others feel that being good at sports is not so important to them	☐	☐
☐	☐	Some people feel that they are among the best when it comes to playing sports	**BUT**	Others feel that they are not among the most able when it comes to athletics	☐	☐
☐	☐	Some people are not quite so confident when it comes to taking part in sports activities	**BUT**	Others are among the most confident when it comes to taking part in sports activities	☐	☐
☐	☐	Some people feel that they are always among the best when it comes to joining in sports activities	**BUT**	Others feel that they are not among the best when it comes to joining in sports activities	☐	☐
☐	☐	Some people are some times a little slower than most when it comes to learning new skills in a sports situation	**BUT**	Others always seem to be among the quickest when it comes to learning new sports skills	☐	☐
☐	☐	Given the chance, some people are always among the first to join in sports activities always among the first to join in sports activities	**BUT**	Other people sometimes hold back and are not usually among the first to join in sports back and are not usually among the first to join in sports	☐	☐

APPENDIX O

RECRUITMENT EMAIL: PARENTS/LEGAL GUARDIANS OF PARTICIPANTS

Dear Mr. or Mrs._____:

I am a graduate student under the direction of Professor Dr. Robert Eklund in the Department of Sports Psychology at Florida State University. I am conducting a research study to understand youth sport athletes' motivation to participate in softball and their beliefs about the softball camp learning experiences.

Your daughter's participation will involve wearing a colored wrist band, and having their picture taken for identification purposes, and answering a questionnaire about her personal motivations for playing softball and, her perceptions of skill learning experiences during the camp. Questionnaires were answered once at the beginning of camp, once after the first day of camp, and once at the end of camp. All answers were kept confidential and all pictures were returned to your daughter at the end of the camp. The study will last the duration of the Higher Ground Super/Select softball camp. **Your daughter's participation is voluntary**. If you or your daughter choose not to participate or to withdraw from the study at any time, there was no penalty, (it will not affect your daughter's treatment or care at the camp in any way). If the results of the research study are published, your child's name will not be used. Information obtained during the course of the study will remain confidential, to the extent allowed by law. **You and your daughter were asked to sign an informed consent for participation upon arrival to camp.**

Although there may be no direct benefit to your daughter, the possible benefit of your child's participation is to aid in future positive developments in the area of coaching behaviors that will fit children and athletes in the future.

If you have any questions concerning this research study or your daughter's participation in the study, please call me at (850)445-8595 or Dr. Robert Eklund at (850)645-2909. If you have any questions about your daughter's rights as a participant in this study, or if you feel you have been place at risk, you can contact the Chair of the Human Subjects Committee, Institutional Review Board, through the Office of the Vice President for Research, at (850)644-8633

Sincerely,

Megan Matthews

APPENDIX P

RECRUITMENT EMAIL: COACH/ADULT PARTICIPANTS

Dear (name of participant):

I am a graduate student under the direction of Professor Dr. Robert Eklund in the Department of Educational Psychology and Learning Systems at Florida State University. I am conducting a research study to understand youth sport athletes' motivation to participate in softball and their beliefs about the softball camp learning experiences.

Your participation will involve answering a questionnaire upon arrival to camp about your general expectations of athlete skill level among participants at summer softball camp. You were asked to fill out 3 questionnaires about individual athletes in the group of campers you most frequently interact with during daily sessions relative to your expectations of their potential as softball players. One questionnaire was completed on the first day of camp before the first session begins, a second was completed on the first day of camp following the first session, and a third was completed on the last day of camp following the final session. All answers were kept confidential. Campers will *not* be aware that you are answering questions about your expectations of their softball potential. The study will last the duration of the Higher Ground softball camp. **Your participation is voluntary**. If you choose not to participate or to withdraw from the study at any time, there was no penalty, (it will not affect your treatment or care). If the results of the research study are published, your name will not be used. Information obtained during the course of the study will remain confidential, to the extent allowed by law. **You were asked to sign a consent form upon your arrival at camp.**

Although there may be no direct benefit to you, the possible benefit of your participation is to aid the development of future coaching education programs to benefit children and athletes in the future.

If you have any questions concerning this research study participation in the study, please call me at (850)445-8595 or Dr. Robert Eklund at (850)645-2909. If you have any questions about your rights as a participant in this study, or if you feel you have been place at risk, you can contact the Chair of the Human Subjects Committee, Institutional Review Board, through the Office of the Vice President for Research, at (850)644-8633

Sincerely,

Megan Matthews

REFERENCES

Amorose, A. J., & Horn, T. S. (2000). Intrinsic motivation: Relationships with collegiate athletes' gender, scholarship status, and perceptions of their coaches' behavior. *Journal of Sport and Exercise Psychology, 22,* 63-84.

Amorose, A. J., & Horn, T. S. (2001). Pre-to post-season changes in the intrinsic motivation of first year college athletes: Relationships with coaching behavior and scholarship status. *Journal of Applied Sport Psychology, 13,* 355-373.

Amorose, A. J., & Weiss, M. R. (1998). Coaching feedback as a source of information about perceptions of ability: A developmental examination. *Journal of Sport and Exercise Psychology, 20,* 395-420.

ASA Quick Facts. (2006). Retrieved September 11, 2006, from ASA Softball Web Site: http://asasoftball.com

Berryman, J. (1996). The rise of boys' sports in the United States, 1900 to 1970. In F. Smoll & R. Smith (Eds.), *Children in youth sports: A biopsychosocial perspective.* Dubuque, IA: Brown & Benchmark.

Black, S. J., & Weiss, M. R. (1992). The relationship among perceived coaching behaviors, perceptions of ability, and motivation in competitive age-group swimmers. *Journal of Sport and Exercise Psychology, 14,* 309-325.

Brattesani, K. A., Weinstein, R. S., & Marshall, H. H. (1984). Student perceptions of differential teacher treatment as moderators of teacher expectation effects. *Journal of Educational Psychology, 76,* 236-247.

Brophy, J. (1983). Research on the self-fulfilling prophecy and teacher expectations. *Journal of Educational Psychology, 75,* 631-661.

Brophy, J., & Good, T. (1974). *Teacher-student relationships: Causes and consequences*. New York: Holt, Rinehart & Winston.

Clark, K. B. (1963). Educational stimulation of racially disadvantaged children. In A.H. Passow (Ed.), *Education in depressed areas*, New York: Columbia Press.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Erlbaum.

Cronin, A., & Mandich, M. (2005). *Human development and performance throughout the lifespan* (1st Ed.). Clifton Park, NY: Thomson Delmar Learning.

Cumming, S. P., Smith, R. E., & Smoll, F. L. (2006). Athlete-perceived coaching behaviors: Relating two measurement traditions. *Journal of Sport and Exercise Psychology, 28,* 205-213.

Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum.

Eden, D. (1984). Self-fulfilling prophecy as a management tool: Harnessing Pygmalion. *Academy of Management Review, 9,* 64-73.

Eden, D., & Ravid, G. (1982). Pygmalion vs. self-expectancy: Effects of instructor and self-expectancy on trainee performance. *Organizational Behavior and Human Performance, 30,* 351-364.

Eden, D., & Shani, A. B. (1982). Pygmalion goes to boot camp: Expectancy, leadership and trainee performance. *Journal of Applied Psychology, 67,* 194-199.

Fox, K. R. (1990). *The physical self-perception profile manual*. Dekalb, IL: Northern Illiniois University, Office for Health Promotions.

Frederick, C. M., & Ryan, R. M. (1995). Self-determination in sport: A review using cognitive evaluation theory. *International Journal of Sport Psychology, 26,* 5-23.

Goldberg, M. (1963). Factors affecting educational attainment in depressed urban areas. In A.H. Passow (Ed.), *Education in depressed areas*, New York: Columbia Press.

Hedstrom, R., & Gould, D. (2004, November 1). *Research in youth sports: Critical issues status**. Kansas City: Citizenship Through Sports Alliance.

Hollembeak, J., & Amorose, A. J. (2005). Perceived coaching behaviors and college athletes' intrinsic motivation: A test of self-determination theory. *Journal of Applied Sport Psychology, 17,* 20-36.

Horn, T. S. (1984). Expectancy effects in the interscholastic athletic setting: Methodological concerns. *Journal of Sport Psychology, 6,* 60-76.

Horn, T. S. (1987). The influence of teacher-coach behavior on the psychological development of children. In D. Gould & M. R. Weiss (Eds.), *Advances in pediatric sport sciences: Behavioral issues* (Vol. 2 ed., pp. 121-142). Champaign, IL: Human Kinetics.

Horn, T. S., Lox, C., & Labrador, F. (1998). The self-fulfilling prophecy theory: When coaches' expectations become reality. In J.M. Williams (Ed.), *Applied Sports Psychology: Personal Growth to Peak Performance* (3rd ed., pp. 74-91). Mountain View, CA: Mayfield Publishing Company.

Jussim, L., Soffin, S., Brown, R., Ley, J., & Kohlhepp, K. (1992). Understanding reactions to feedback by integrating ideas from symbolic interactionism and cognitive evaluation theory. *Journal of Personality and Social Psychology, 62,* 402-421.

Madon, S. (2001). Am I as you see me or do you see me as I am? Self-fulfilling prophecies and self-verification. *Personality and Social Psychology Bulletin, 27,* 1214-1224.

Mageau, G. A., & Vallerand, R. J. (2003). The coach-athlete relationship: A motivational model. *Journal of Sports Sciences, 21, 883-904*. Retrieved July 13, 2006, from CanadianSport.ca Web Site: http://www.canadiansport.ca/newsletters/october/coachathleterelationship.cfm?

Martinek, T. J. (1981). Physical attractiveness: Effects on teacher expectations and dyadic interactions in elementary age children. *Journal of Sport Psychology, 3,* 196-205.

Martinek, T. J., Crowe, P. B., & Rejeski, W. J. (1982). *Pygmalion in the gym: Causes and effects of expectations in teaching and coaching*. West Point, NY: Leisure Press.

Martinek, T. J., & Karper, W. B. (1984). The effects of noncompetitive and competitive instructional climates on teacher expectancy effects in elementary physical education classes. *Journal of Sport Psychology, 6,* 408-421.

Merton, R. (1948). The self-fulfilling prophecy. *Antioch Review, 8,* 193-210.

Meyer, W. J. (1985). Summary, integration, and prospective. In J. Dusek (Ed.), *Teacher expectancies* (pp. 353-370). Hillsdale, NJ: Erlbaum.

Miller, D. T., & Turnbull, W. (1986). Expectancies and interpersonal processes. *Annual Review of Psychology, 37,* 233-256. Retrieved July 14, 2006, from Annual Reviews Web Site: http://annualreviews.org/aronline

Ommundsen, Y., Roberts, G. C., & Kavussanu, M. (1998). Perceived motivational climate and cognitive and affective correlates among Norwegian athletes. *Journal of Sports Sciences, 16,* 153-164.

Orlick, T., & Botterill, C. (1975). *Every kid can win*. Chicago, IL: Nelson-Hall.

Palardy, J. (1969). What teachers believe-What children achieve. *Elementary School Journal, 69,* 370-374.

Parsons, J. E., Kaczala, C. M., & Meece, J. L. (1982). Socialization of achievement attitudes and beliefs: Classroom influences. *Child development, 53,* 332-339.

Pelletier, L. G., Fortier, M. S., Vallerand, R. J., Tuson, K. M., & Briere, N. M. (1995). Toward a new measure of intrinsic motivation, extrinsic motivation, and amotivation in sports: the sport motivation scale (SMS). *Journal of Sport and Exercise Psychology, 17,* 35-53.

Raudenbush, S. W. (1984). Magnitude of teacher expectancy effects on pupil IQ as a function of the credibility of expectancy induction: A synthesis of findings from 18 experiments. *Journal of Educational Psychology, 76,* 85-97.

Rejeski, W., Darracott, C., & Hutslar, S. (1979). Pygmalion in youth sport: A field study. *Journal of Sport Psychology, 1,* 311-319.

Rosenthal, R., & Jacobson, L. (1968). *Pygmalion in the classroom: Teacher expectations and pupil intellectual growth*. New York: Holt, Rinehart & Winston.

Ryan, R. M., & Deci, E. L. (2000). Self determination theory and the facilitation of intrinsic motivation, social development, and well being. *American Psychologist, 55,* 68-78.

Sarrazin, P., Vallerand, R. J., Guillet, E., Pelletier, L. G., & Cury, F. (2001). Motivation and dropout in female handballers: a 21-month prospective study. *European Psychology, 31,* 1-24.

Scanlan, T. K., & Passer, M. W. (1979). Sources of competitive stress in young female athletes. *Journal of Sport Psychology, 1,* 151-159.

Schinke, R. J., & Tabakman. (2001). *Reflective coaching interventions for athletic excellence*. Retrieved March 2, 2006, from the online Journal of sport psychology Web Site: http://www.athleticinsight.com/Vol3Iss1/Reflective_Coaching.htm

Seaver, W. B. (1973). Effects of naturally induced teacher expectancies. *Journal of Perceptual Social Psychology, 28,* 333-342.

Seefeldt, V., Ewing, M., & Walk, S. (1992). *Overview of youth sports programs in the United States*. Washington, DC: Carnegie Council on Adolescent Development.

Shavelson, R., Cadwell, J., & Izu, T. (1977). Teachers' sensitivity to the reliability of information in making pedagogical decisions. *American Educational Research Journal, 14,* 83-97.

Short, S. E., & Short, M. W. (2005). Role of the coach in the coach-athlete relationship. *The Lancet, 366,* 29-30.

Sinclair, D. A., & Vealey, R. S. (1989). Effects of coaches' expectation and feedback on the self-perceptions of athletes. *Journal of Sport Behavior, 12,* 77-91.

Smith, R. E., Smoll, F. L., & Barnett, N. P. (1995). Reduction of children's sport performance anxiety through social support and stress-reduction training for coaches. *Journal of Applied Developmental Psychology, 16,* 125-142.

Smith, R. E., Smoll, F. L., & Curtis, B. (1979). Coach effectiveness training: A cognitive behavioral approach to enhancing relationship skills in youth sport coaches. *Journal of Sport Psychology, 1*, 59-75.

Smith, R. E., Smoll, F. L., & Hunt, E. B. (1977). A system for the behavioral assessment of athletic coaches. *Research Quarterly, 48,* 401-407.

Snyder, E. E. (1972). High school athletes and their coaches: educational plans and advice. *Sociology of education, 45,* 313-325.

Trouilloud, D. O., Philippe, G. S., Martinek, T. J., & Guillet, E. (2002). The influence of teacher expectations on student achievement in physical education classes: Pygmalion revisited. *European Journal of Social Psychology, 32,* 591-607.

Vallerand, R. J. (1983). The effects of differential amounts of positive verbal feedback on the intrinsic motivation of male hockey players. *Journal of Sport Psychology, 5,* 100-107.

Vallerand, R. J., & Bissonnette, R. (1992). Intrinsic, extrinsic, and amotivational styles as predictors of behavior: A prospective study. *Journal of Personality, 60,* 599-620.

Vallerand, R. J., Deci, E. L.,& Ryan, R. M. (1987). Intrinsic motivation in sport. *Exercise and Sport Sciences Reviews, 15,* 389-424.

Vallerand, R. J., & Fortier, M. S. (1998). Measures of intrinsic and extrinsic motivation in sport and physical activity: A review and critique. In J. Duda (Ed.), *Advances in sport and exercise psychology measurement* (pp. 81-101). Morgantown, WV: Fitness Information Technology.

Vallerand, R. J., Fortier, M. S., & Gray, F. (1997). Self-determination and persistence in a real-life setting: Toward a motivational model of high school dropout. *Journal of Personality and Social Psychology, 72,* 1161-1176.

Vallerand, R. J., & Losier, G. F. (1999). An integrative analysis of intrinsic and extrinsic motivation in sport. *Journal of Applied Sport Psychology, 11,* 142-169.

Vallerand, R. J., & Reid, G. (1984). On the casual effects of perceived competence on intrinsic motivation: A test of cognitive evaluation theory. *Journal of Sport Psychology, 6,* 94-102.

Vallerand, R. J., & Fortier, M. S. (1998). Measures of intrinsic and extrinsic motivation in sport and physical activity: a review and critique. In J. Duda (Ed.), *Advances in sport and exercise psychology measurement* (pp. 81-101). Morgantown, WV: Fitness Information Technology.

Vlachopoulos, S. P., Karageorghis, C. I., & Terry, P. C. (2000). Motivation profiles in sport: A self-determination theory perspective. *Research Quarterly for Exercise and Sport, 71,* 387-397.

Vlachopoulos, S. P., Karageorghis, C. I., & Terry, P. C. (Dec. 2000). Motivation profiles in sport: A self-determination theory perspective. *Research Quarterly for Exercise and Sport, 71,* 387-397.

Wayda, V. K. (1996). The self-fulfilling prophecy in college basketball: Implications for effective coaching. *Journal of Applied Sport Psychology, 8,* 44-59.

Weiss, M. R., & Ferrer-Caja, E. (2002). Motivational orientations and sport behavior. In T.S. Horn (Ed.), *Advances in sport psychology* (2nd ed., pp. 101-184). Champaign, IL: Human Kinetics.

West, C., & Anderson, T. (1976). The question of preponderant causation in teacher expectancy research. *Review of Educational Research, 46,* 613-630.

Whitehead, J., & Corbin, C. (1991). Youth fitness testing: the effect of percentile-based evaluative feedback on intrinsic motivation. *Research Quarterly for Exercise and Sport, 62,* 225-231.

Whitehead, J. R., & Corbin, C. B. (1988). *Physical competency/adequacy subdomains and their relationship to global physical self-worth, and global general self-worth*. Paper presented at the meeting of the Annual Conference of the Association for the Advancement of Applied Sport Psychology.

Williams, L., & Gill, D. L. (1995). The role of perceived competence in the motivation of physical activity. *Journal of Sport and Exercise Psychology, 17,* 363-378.

Wineburg, S. S. (1987). The self-fulfillment of the self-fulfilling prophecy. *Educational Researcher, December,* 28-37.

BIOGRAPHICAL SKETCH

Megan Matthews was born December 7, 1979 in Prince Georges County, Maryland. She grew up in Greer, South Carolina where she graduated from Riverside High School. She played fast pitch softball as a pitcher for 14 years, competing at the college level, International level, and Professional level. Megan attended the University of South Carolina-Columbia were she received her Bachelor's degree in Exercise Science in 2003. While completing her Master's degree at Florida State, she worked as a full-time pitching coach for the University's softball team. After completing her Master's degree in August 2008, Megan will continue her coaching career at Coastal Carolina University in Myrtle Beach, South Carolina where she is currently employed.