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The Influence of Performance Level and Setting on Collegiate Athletes' Motivational Profiles

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THE INFLUENCE OF PERFORMANCE LEVEL AND SETTING ON COLLEGIATE ATHLETES' MOTIVATIONAL PROFILES

by

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GRADUATE COMMITTEE APPROVAL

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As chair of the candidate's graduate committee, I have read the thesis of Shareen B. Smith in its final form and have found that (1) its format, citations, and bibliographical style are consistent and acceptable and fulfill university and department style requirements; (2) its illustrative materials including figures, tables, and charts are in place; and (3) the final manuscript is satisfactory to the graduate committee and is ready for submission to the university library.

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ABSTRACT

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The purpose of this study was to determine if motivational profiles of individual collegiate team sport athletes differ across ability levels (High, Middle, and Low) and settings (Team Practice, Competition, and Personal Practice).

The athletes task and ego disposition, autonomy, and contextual motivation, were assessed using the Perception of Success Questionnaire (POSQ), Sport Climate Questionnaire (SCQ), and Sport Motivational Scale (SMS), pre and postseason. Their anxiety levels and situational motivation were measured using the Sport Anxiety Scale (SAS) and the Situational Motivational Scale (SIMS) during the season. The General Causality Orientations Scale (GCOS) was used pre and postseason to assess the strength of different motivational orientations in the coaches and the strength of association to the athletes' various motivational, anxiety and dispositional profiles.

Results revealed that the athletes are functioning with high task and ego orientations almost equally across settings. They were also relatively high overall in

perceived autonomy support. Anxiety and worry existed in all three settings, but in only low to moderate amounts. In addition, athletes reported higher levels of concentration disruption in competition settings over team or personal practice. Finally, individual athletes experienced significantly higher levels of self-determination behavior in both the competition and personal practice settings over team practice.

No significant differences were found between the pre and postseason surveys for either the athletes or the coaches, or in the ability levels (H, M, and L) of the athletes.

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The Influence of Performance Level and Setting on Collegiate Athletes' Motivational Profiles

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Abstract

The purpose of this study was to determine if motivational profiles of individual collegiate team sport athletes differ across ability levels (High, Middle, and Low) and settings (Team Practice, Competition, and Personal Practice).

The athletes task and ego disposition, autonomy, and contextual motivation, were assessed using the Perception of Success Questionnaire (POSQ), Sport Climate Questionnaire (SCQ), and Sport Motivational Scale (SMS), pre and postseason. Their anxiety levels and situational motivation were measured using the Sport Anxiety Scale (SAS) and the Situational Motivational Scale (SIMS) during the season. The General Causality Orientations Scale (GCOS) was used pre and postseason to assess the strength of different motivational orientations in the coaches and the strength of association to the athletes' various motivational, anxiety and dispositional profiles.

Results revealed that the athletes are functioning with high task and ego orientations almost equally across settings. They were also relatively high overall in perceived autonomy support. Anxiety and worry existed in all three settings, but in only low to moderate amounts. In addition, athletes reported higher levels of concentration disruption in competition settings over team or personal practice. Finally, individual athletes experienced significantly higher levels of self-determination behavior in both the competition and personal practice settings over team practice.

No significant differences were found between the pre and postseason surveys for either the athletes or the coaches, or in the ability levels (H, M, and L) of the athletes.

Introduction

In order to produce desired outcomes in all human beings, one must understand the concept of motivated behavior. If parents, teachers, leaders and coaches can understand what and how to motivate their students or athletes, then they can provide the best environment possible for that student or athlete, enhancing the individual's experience and aiding them in becoming a more positive and healthy human being. In each context of life, there exist social pressures that can positively or negatively affect one's motivational state and in turn, their behavioral outcomes.

According to Deci and Ryan (2000), to understand motivation one needs to consider the innate psychological needs of the human being: autonomy, competence, and relatedness (Hollembeak & Amorose, 2005, Ryan & Deci, 2000).When individuals are intrinsically motivated and their basic needs are met, humans are able to function at their highest levels. When this happens they can feel a sense of relatedness (the need to perceive that we are connected to those around us or a sense of belonging), autonomy (the need to perceive behaviors and thoughts as self-chosen), and competence (the need to perceive behavior as effective) (Hollembeak & Amorose, 2005). Ryan and Deci (2000b) state that individual's will express their autonomy, relatedness, and competence differently because different social cultures hold different values. However, if a society can only provide one of these necessities it is neglecting others, which will result in a decline in the individuals overall well-being (Ryan & Deci, 2000b). A few theories help to explain and give a background to how certain environments or settings are important to consider for the well-being of individuals. These theories are intertwined and very

closely associated with one another in how they can influence an individual's motivational profile whether in sports or in every day life. In order to understand these theories more fully, they will each be discussed separately.

The self-determination theory proposes that human functioning can be impeded or facilitated by social context (Deci, Eghrari, Patrick, & Leone, 1994). It suggests that motivation exists on a continuum consisting of eight levels. Starting at the least self-determined end to most self-determined are amotivation, external regulation, introjected regulation, identified regulation, integrated regulation, intrinsic motivation to experience stimulation, intrinsic motivation to accomplish, and intrinsic motivation to know (Fortier, Vallerand, & Brière, 1995).

Amotivation is either learned helplessness or a lack of motivation. Individuals are neither extrinsically or intrinsically motivated. The four types of external motivation follow on the continuum: external regulation, in which athletes may perform to avoid punishment or for a reward; introjected regulation occurs when an athlete self imposes pressure to do something; identified regulation occurs when the individual chooses to perform the task because they perceive the activity as being important, even if it is not pleasant. The fourth external motivation level is integrated regulation, which is also a choice decision, made on how the activity relates to the whole self and not on the activity alone.

Three levels of intrinsic motivation then follow the external levels. Intrinsic motivation to experience stimulation occurs when someone engages in an activity for sensory pleasure, excitement, or fun. Intrinsic motivation to accomplish focuses on the

joy one gets from mastering a new skill, surpassing oneself, or creating something new. And finally, intrinsic motivation to know happens when one participates in the activity merely to learn something new, explore, or to understand (Fortier et al., 1995; Vallerand & Fortier, 1998). It should be noted, however, that the order of the intrinsic motivation levels remains unclear (Prusak, Christensen, Standage, & Treasure, 2006).

The cognitive evaluation theory (CET) is a mini-theory within the self-determination theory. This theory predicts that it is possible to either undermine or enhance an individual's intrinsic motivation, depending on how the individual perceives any given award (Amorose & Horn, 2000). Intrinsic motivation can be hindered if the individual thinks that the award is given in order to control his or her behavior. However, if the award is given as a positive reinforcer for ability, then the individual's intrinsic motivation can be enhanced.

The achievement goals theory also proposes some influences on motivation by considering two types of environments: the first is task involving, and the second is ego involving. A task-involved environment places emphasis on task mastering, effort, learning, and improving. An ego-involved environment focuses on comparisons, competition, and public evaluation (Reinboth & Duda, 2006).

Vallerand (2001) proposed a hierarchal model that explains how the continuum of motivation and all of its facets operate on three different levels: global, contextual, and situational. The global level refers to how someone normally interacts with the environment as a whole. The contextual level involves the perception of a certain context such as sports, school, education, or work. The situational level deals with the here and

now of a particular situation; for example, how someone feels at a certain time during a game (Standage, Duda, Treasure, and Prusak, 2003). These three levels function in a top down or bottom up effect, which influences the hierarchal stability.

According to Fortier et al. (1995), competitive sport settings can undermine an athlete's intrinsic motivation; in addition, higher levels of amotivation are found in competitive athletes over recreational athletes. In a competitive environment these athletes are competing to win, an extrinsic motivation, instead of competing to do their best, an intrinsic motivation. Intrinsic motivation can be lost in children as young as first grade due to competitive contexts (Gagne, Ryan, & Bargmann, 2003).

The various behaviors that coaches exhibit are also strongly related to athletes' perceived competence, relatedness, and autonomy (Hollembeak & Amorose, 2005). Coaches may be responsible for not only the athlete's performance, but also the athlete's persistence in that sport (Mageau & Vallerand, 2003). The way that training is conducted will have a strong influence on athletes (Gagne et al., 2003). By giving athletes options, encouraging self-regulation and providing rationales for requested behaviors, coaches can foster some of the athletes' basic needs (Reinboth, Duda, & Ntoumanis, 2004). Although the coaches and environments play a role in influencing an athlete's motivational profile, ability level and setting may also have an effect.

Thus, this study examines how ability level (high, middle, and low, as determined by the coaches) across three distinctly different settings (competition, team practice, and personal practice) affects the motivational profiles of individual sport athletes.

Therefore, the purpose of this study is to determine if motivational profiles differ across different ability levels and settings. If they do, coaches may provide specific reinforcers that create an optimal motivational level specific to the ability level and setting to enhance performance.

Methods

Participants

The population of this study consisted of male and female collegiate athletes from 13 individual sports teams at Brigham Young University (mens and womens cross country, track & field, golf, swimming, diving, tennis, and the womens gymnastics team). Due to the fact that one of the surveys was optional, there was a variance in the number of participants (n = 37-99).

Instruments

In order to eliminate rival hypotheses and to assess these specific theoretically driven motivational constructs, a variety of instruments and scales were used. The Perception of Success Questionnaire (POSQ) was used to assess ego or task disposition (Roberts, Treasure, & Balague, 1998). The POSQ contains 12 items that assess individual task and ego orientations. The 15-item Sport Climate Questionnaire (SCQ) was used to measure the athletes' perception of autonomy support from the coaches (Sport Climate Questionnaire). In order to condense and save time, the abridged, 16-item, four-subscale Sport Motivational Scale (SMS) was used to determine self-determination at the contextual level (i.e., their sport season, Pelletier, Fortier, Vallerand, Tuson, Brière, & Blais, 1995). The 21-item, three-subscale Sport Anxiety Scale (SAS) was used to

determine three aspects of anxiety (somatic anxiety or sleep disruption, worry, and concentration disruption) in the athletes, across three distinct settings; team practice, competition and personal practice (Smith, Smoll, & Schutz, 1990). The 16-item, four-subscale Situational Motivational Scale (SIMS) was used to evaluate athlete self-determination at the situational level in each of the three settings (Guay & Vallerand, 2000). The General Causality Orientations Scale (GCOS) was used to assess the strength of different motivational orientations in the coaches and the strength of association to the athletes' various motivational, anxiety, and dispositional profiles (Deci & Ryan, 1985). In the GCOS, coaches respond to 17 vignettes that assess their support of athlete competence, autonomy, and relatedness (impersonal). All of these instruments have been deemed valid and reliable for the intended use and population.

Procedures

Prior to data collection, IRB approval for the study was obtained. All participants were given a letter of informed consent. The coaches provided a high (H), middle (M), and low (L) "rankings list" of their teams both pre and postseason to establish the ability levels of the athletes. All questionnaires were completed via an online survey program, Qualtrics (Qualtrics).

The coaches also completed the GCOS, pre and postseason to assess the strength of their personal motivational orientations towards the athletes. The athletes completed the POSQ, SCQ and SMS pre and postseason. All athletes continued to participate in their normal practice and competition routines. The SAS and the SIMS questionnaires were completed at the athletes' convenience during their season on three different

occasions, (a) after a team practice, (b) after a game, and (c) after a personal practice session in order to assess the motivational profiles associated with ability levels across each of these three different settings. While athletes were instructed to take the surveys as soon as possible following the participation in each of the specific settings, there was no measure of time lapse between the setting completion and taking the survey.

For the purpose of this study, we looked at all of the individual sport teams as a group and not as individual sports. One reason for this was because with individual team sports, a team win is seen as secondary to a personal win. In addition, the win/loss record of the athletes was not measured because it would be impossible to quantify due to the nature of the different sports. A personal best may define success more than a team win, and therefore unable to accurately measure.

Design & Data Analysis

This was a within and between 3 (levels of ability) x 3 (contexts) nested design which allowed further evaluation of interactions between athlete ability level and motivation in different contextual settings so that optimal reinforcers may be provided. Descriptive statistics (means, standard deviation, Cronbach's alpha) were examined. An ANOVA omnibus test was used to determine the between and within-group differences followed by specific theory driven post hoc comparisons. Finally, a Pearson's *R* correlation test was used to assess the strength of relationships between selected variables of interest. Differences were considered significant at $p < 0.05$.

Ultimately, this study resulted in an examination of (a) between-group differences in self-determination based on ability across settings (team practice, game, and personal

practice), (b) pre-to-post differences in athletes' and coaches' perceptions of the sport climate, and (c) the strength of association between motivational profiles and perceptions of climate.

Results

Reliability and Internal Consistency

Cronbach's alpha for the SAS (to determine three aspects of anxiety) survey showed adequate internal consistency on two of the three subscales: somatic anxiety 0.92, worry 0.92, and concentration disruption 0.65, the average totaling 0.83 (see Table 1, alpha values on diagonal).

Cronbach's alpha for the four SIMS (to evaluate athlete self-determination at the situational level across all three settings) subscales showed adequate internal consistency with values ranging from 0.76 to 0.83. Reliability scores are deemed acceptable when values are > 0.7 (see Table 2, alpha values on diagonal).

Simplex Pattern of SAS and SIMS

Pearson's *R* correlation coefficients for each of the three SAS subscales and the four SIMS subscales were calculated (see Table 1 and Table 2 respectively, above diagonal). The simplex pattern of both the SAS and SIMS instruments (see notes in Tables 1 and 2), is supported in that intrinsic motivation (IM), extrinsic motivation (EM), and amotivation (AM) appear to lie on a continuum, with IM and AM at distal ends.

Between and Within Contrasts on Ability Rankings, SAS, SIMS and SDI

There were no between-group differences (based on ability rankings, H, M, and L), therefore all levels were collapsed into one group. All subsequent statistical procedures were conducted on all athletes considered as one group.

Means and standard deviations, for the SAS are given in Table 3. Significant differences within the subscale somatic anxiety (SA) were found between all three contexts; TP vs. C, $F(1, 36) = 32.056$, $p < 0.001$; TP vs. PP, $F(1, 36) = 15.764$, $p < .001$; and C vs. PP, $F(1,36) = 59.148$, $p < .001$. Significant differences were also found on the worry (W) subscale between contexts TP vs. C, $F(1, 36) = 21.313$, $p < 0.001$; TP vs. PP, $F(1, 36) = 6.087$, $p < .05$; and C vs. PP, $F(1,36) = 27.926$, $p < .001$. Finally, the subscale of concentration disruption (CD) showed no significant difference between settings. These means were also in the anticipated directions with CD being higher in C, than in either TP or PP.

Significant differences in the self-determination index (SDI) were found between the contexts of (a) team practice (TP) and competition (C), $F(1, 36) = 4.653$, $p < 0.05$, and (b) team practice (TP) and personal practice (PP), $F(1, 36) = 5.139$, $p < 0.05$. No significant difference between the settings of competition and personal practice were found. Means and standard deviations for each of the four subscales represented in the SIMS are indicated in Table 4. Please note that indicators of high self-determination (i.e., IM and IR) are moderately high while indicators of low self-determination (i.e., ER and AM) are low. These means were in the anticipated direction. Effect sizes (see Table 4) reveal a small effect ($r = .20$ - $.44$) due to changes in setting.

Pre and Postseason Results and Rankings

There were no significant pre-to-post differences between the ranked ability levels of the athletes that were provided by the coaches. This could be due to the fact that most athletes are considered elite at the college level.

No significant pre-to-post differences were noted on the POSQ (to assess ego or task disposition), SCQ (to measure the athletes' perception of autonomy support from the coaches), and SMS (to determine self-determination at the contextual level) given to the athletes, or the GCOS (to assess the strength of different motivational orientations in the coaches and the strength of association to the athletes' various motivational, anxiety, and dispositional profiles) given to the coaches. This may have been caused by the short period of time allotted for the pre to post-testing.

Discussion

This study examined if motivational profiles in collegiate athletes differ across ability levels and settings. The overall results indicate that the individual, team sport, collegiate athletes are all generally self-determined, meaning that their motivational profile is most often found toward the intrinsic motivation end of the self-determination continuum.

Pre-to-Post Comparisons for POSQ and SCQ

Even though the pre and posttests were not significant, they did reveal some interesting conclusions that had meaningful implications. Within the POSQ, both task orientations ($m = 1.74$) and ego orientations ($m = 1.88$) within athletes, indicated that the collegiate athletes tested have abilities to be either task or ego involved across a season.

An ego-involved person is usually more concerned about demonstrating superior abilities than their counterpart, a task-involved person, and they are worried about how they will be compared to others, focusing on outcomes that are out of their control (Reinboth & Duda, 2006). When people's egos or feelings of self-worth are on the line they are very motivated to perform a skill because of the tension and pressure of needing to do well (Vansteenkiste & Deci, 2003). The ability of a coach and athlete to appropriately elicit either a task or an ego orientation adapted to different settings throughout the course of a season is crucial for collegiate athletes and their learning and performance.

Likewise, the SCQ (m = 2.45), though not significant pre-to-post, mean was relatively low in the overall seven-point scale (1 = strongly agree, 2 = somewhat agree…7 = strongly disagree that the coaches supported athletes' sense of autonomy). This indicates that over the course of the season and across all settings, these coaches provide a healthy, autonomy supportive environment for their athletes. Environments supportive of autonomy, competence, and relatedness will result in athletes who display higher levels of self-determined behaviors in sport (Pelletier et al., 1995), which was confirmed in this study.

Within-Group Comparisons Across Settings for SAS and SIMS

The SAS was designed to measure somatic anxiety, worry and concentration disruption (see Table 2; Smith et al., 1990). Significant findings indicate that somatic anxiety and worry differ across all three settings, but with small to moderate effect sizes. While athletes report higher levels of somatic anxiety and worry in competition than in either TP or PP, means suggest that none of these rise to a level of being debilitating.

Again, this could be an indicator of an overall healthy sporting environment. Concentration disruption did not differ significantly across settings. Perhaps athletes at this level have learned to deal successfully with distractions regardless of the situation.

The SIMS revealed that individual athletes experience significantly higher levels of self-determined behavior in competition and personal practice than in team practice sessions. However, though these differences are statistically significant, the effect sizes were in all cases small and should be considered with caution. These differences may be explained by considering team practice is run by the coaches, and therefore may cause a decrease in some of the athlete's self-determined behaviors, while both competition and personal practice sessions are self-regulated activities, particularly for individual sport athletes. Coaches should make every effort to create environments that support autonomy by minimizing threats, avoiding controlling language, and acknowledging the learners' position in order to enhance learning, encourage adjustment, test performance, and facilitate autonomous motivation (Vansteenkiste, Simons, Lens, Sheldon, & Deci, 2004). While there are significant differences in this study, the low means and the small effect sizes indicate that these particular coaches are, for the most part, successfully creating such environments.

It is crucial for coaches, leaders, teachers, and parents to know how people are motivated in order to provide the best possible environment. This study provided further evidence to the body of research that individuals can function optimally when they are near the IM end of the self-determined continuum. Using a series of task-involved activities, more than ego-involved activities, individual's can satisfy their needs of

autonomy, competence, and relatedness, thereby increasing intrinsic motivation (Reinboth & Duda, 2006). In addition, this study confirms previous findings that, coaches who create sound motivational climates that are supportive of autonomy, will have athletes whose motivational profiles are more self-determined. All of these factors combined will contribute to an individuals' overall well-being, leading them to be positive, healthy, and intrinsically motivated.

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Table 1

Internal Consistency Values: Cronbach's Alpha & Pearson Correlation for the Sport Anxiety Scale (SAS).

SAS Subscales	SA	W	CD	*Mα*
1. Somatic Anxiety	[.92]	.72*	.30	
2. Worry		[.92]	.43*	
3. Concentration Disruption			[.65]	
				[.83] ‡

Note: Alphas are on the diagonal & the correlations are above the diagonal.

* Significant correlations $p < 0.01$

‡Mean alpha of all SAS subscales

SA = Somatic Anxiety

W = Worry

CD = Concentration Disruption

Table 2

Internal Consistency Values: Cronbach's Alpha & Pearson Correlation for the Situational Motivational Scale (SIMS).

SIMS Subscales	1	2	3	4	*Mα*
	IM	*IR*	*ER*	*AM*	
1. Intrinsic Motivation	[.83]	.61**	-.24	-.33*	
2. Identified Regulation		[.76]	-.03	-.25*	
3. External Regulation			[.80]	.51*	
4. Amotivation				[.78]	
					[.79] ‡

Note: The pattern of strongest positive correlations, are between IM/IR and ER/AM. The strongest negative correlations are between IM/AM. Alphas are on the diagonal & the correlations are above the diagonal.

** Significant correlations $p < 0.01$, * $p < 0.05$

‡Mean alpha of all SIMS subscales

IM = Intrinsic Motivation

IR = Identified Regulation

ER = External Regulation

AM = Amotivation

Table 3

Means and Standard Deviations of the Sport Anxiety Scale (SAS) across three Settings.

Setting	Subscale	N	M	SD
1. Team Practice	SAS1	64		
	SA		1.62**	.59
	W		2.09**	.89
	CD		1.65	.52
2. After Competition	SAS2	62		
	SA		2.15**	.77
	W		2.47*	.89
	CD		1.72	.66
3. Personal Practice	SAS3	54		
	SA		1.38**	.55
	W		1.83*	.70
	CD		1.65	.43

**Significant differences $p < 0.001$, between all three SA settings, and between 1W & 2W and 2W & 3W

*Significant differences $p < 0.05$, between 1W & 3W

SA = Somatic Anxiety

W = Worry

CD = Concentration Disruption

Table 4

Means, Standard Deviations and Effect Sizes of the Situational Motivational Scale (SIMS) across three Settings.

Settings	Subscale	N	M	SD	ES 1 vs 2	ES 1 vs 3	ES 2 vs 3
1. Team Practice	SIMS1	64					
	IM		5.45	1.04			
	IR		5.73	.78			
	ER		2.31	1.28			
	AM		1.63	1.02			
	SDI 1		11.08*ab	4.61	.25†	.44†	
2. After Competition	SIMS2	62					
	IM		5.62	1.10			
	IR		5.76	.94			
	ER		2.09	1.10			
	AM		1.38	.51			
	SDI 2		12.14*a	3.99	.25†		.20†
3. Personal Practice	SIMS3	54					
	IM		5.78	.96			
	IR		5.97	.89			
	ER		1.92	.99			
	AM		1.37	.60			
	SDI 3		12.88*b	3.42		.44†	.20†

*Significant differences between a, b, $p < .05$,

† = small effect size

IM = Intrinsic Motivation

IR = Identified Regulation

ER = External Regulation

AM = Amotivation

SDI = Self-Determination Index

Appendix A

Prospectus

Chapter 1

Introduction

Understanding motivated behavior has long been studied for the express purpose of being able to produce desirable outcomes across the entire spectrum of human experience. For example, parents wish to elicit desirable attributes from their children, employers wish to increase worker productivity, and coaches want to push their athletes to higher levels of performance leading to victory on the competitive field. In each of these, and in many other contexts, there exist social pressures that can positively or negatively, affect one's motivational state and thereby behavioral outcomes.

The self-determination theory (SDT) posits that humans are "proactive organisms whose natural or intrinsic functioning can be either facilitated or impeded by the social context" (Deci, Eghrari, Patrick, & Leone, 1994). Ryan and Deci (2000b) state that intrinsic motivation is the single most phenomenon that reflects human potential. The self-determination theory has broken motivation down into eight levels that run on a continuum. Starting at the least self-determined end to most self-determined, are amotivation, external regulation, introjected regulation, identified regulation, integrated regulation, intrinsic motivation to experience stimulation, intrinsic motivation to accomplish, and intrinsic motivation to know (Fortier, Vallerand, & Brière, 1995).

Amotivation is merely a lack of motivation or learned helplessness. Individuals are neither intrinsically motivated nor extrinsically motivated. The four types of external motivation follow on the continuum: external regulation, in which athletes may perform for a reward or to avoid punishment; introjected regulation occurs when an athlete self

imposes pressure to do something; identified regulation occurs when the individual perceives the activity as being important so they choose to perform the task, even if it is not pleasant. The fourth external motivation level is integrated regulation, which is also a choice decision, made not on the activity alone, but rather how the activity relates to the whole self.

Following these external motivation levels are the three levels of intrinsic motivation. Intrinsic motivation to experience stimulation occurs when someone engages in an activity for fun, excitement, or sensory pleasure. Intrinsic motivation to accomplish focuses on the joy one gets from creating something, surpassing oneself or mastering a new skill. And finally, intrinsic motivation to know happens when one participates in the activity merely to explore, to understand, or to learn something new (Fortier et al., 1995; Vallerand & Fortier, 1998). It should be noted, however, that the order of the intrinsic motivation levels remains unclear (Prusak, Christensen, Standage, & Treasure, 2006).

Within the self-determination theory is the mini-theory of cognitive evaluation theory (CET). This theory predicts that awards given for an achievement can either undermine or enhance the individual's intrinsic motivation, depending on how the individual perceives the award (Amorose & Horn, 2000). If the award is given as a positive reinforcer for competence, then the individual's intrinsic motivation will be enhanced. However, intrinsic motivation will be thwarted if the individual thinks that the award is given in such a way as to control his or her behavior.

The final influences on motivation from the achievement goals theory are two types of environments: the first is ego-involving, and the second is task-involving. In an

ego-involved environment the focus is placed on public evaluation, comparisons, and competition. A task-involved environment places emphasis on improving, learning, effort, and task mastering (Reinboth & Duda, 2006).

It is important to consider all of these theories because they validate one another through construct validity. These environments and theories are all important factors to consider for the well-being of athletes. Optimal human functioning occurs when individuals are intrinsically motivated and their basic needs are met. When this happens they can feel a sense of autonomy (the need to perceive behaviors and thoughts as self-chosen), competence (the need to perceive behavior as effective), and relatedness (the need to perceive that we are connected to those around us or a sense of belonging) (Hollembeak & Amorose, 2005). Ryan and Deci (2000b) state that because different social cultures hold different values, individuals will express their autonomy, relatedness, and competence differently. However, a society that only provides one of these necessities is neglecting others, which will result in some impoverishment of the individual's well-being (Ryan & Deci, 2000b).

According to Fortier et al. (1995), competitive sport settings undermine an athlete's intrinsic motivation; in addition, higher levels of amotivation are found in competitive athletes over recreational athletes. In a competitive environment these athletes are competing to win, an extrinsic motivation, instead of competing to do their best, an intrinsic motivation. Ryan and Deci (2000b) found that extrinsic rewards can also inhibit motivation. It is important for athletes to be in a task-involved environment in

order to increase their intrinsic motivation. This is not accomplished through competition and comparisons.

As the optimal form of motivation is intrinsic, researchers have attempted to discover how it develops along the continuum. In their study, Deci et al. (1994) found that the extrinsic motivations of identified regulation and integrated regulation are best supported by "a meaningful rationale, acknowledgment of feelings, and low controllingness." Also strongly related to athletes' perceived competence, relatedness, and autonomy were the various behaviors that the coaches exhibited (Hollembeak & Amorose, 2005). An athlete's motivation can be dependent upon the coach's behavior. For example, coaches that used autocratic behavior had athletes who expressed negative feelings towards relatedness. In addition, environments that support autonomy by minimizing threats, avoiding controlling language, and acknowledging the learner's position have been found to enhance learning, adjustment, test performance, and facilitate autonomous motivation (Vansteenkiste, Simons, Lens, Sheldon, & Deci, 2004). Any activity that can be framed for the attainment of intrinsic rather than extrinsic goals will lead to better performance and learning (Vansteenkiste et al., 2004).

Understanding motivational profiles of athletes of high, middle, and low ability across these three contexts may allow coaches to provide each athlete an environment for optimal needs satisfaction. The types of feedback from coaches may be customized for each athlete depending on ability and context in support of individual needs for competence, autonomy, and relatedness. In order to customize these nutriments for each athlete, the effects of ability and context on an athlete's motivational profile must first be

understood. Specifically, how does the motivational profile for athletes of high, middle, and low ability differ as they engage in the various contexts of game-day competition, practice, and personal practice time? In addition, greater satisfaction of these basic needs for athletes of all abilities in all sports-related contexts should lead to greater well-being. Conversely, unsatisfied needs can lead to pathology and ill being (Ryan & Deci, 2000b). Therefore, research is needed to assess the effects of differences in ability across various contexts that will provide understanding on how to create a motivationally appropriate climate for individual athletes.

Problem Statement

Does an athlete's motivational profile for high, middle and low ability differ across three distinct contexts of (a) game day competition, (b) team practice sessions, and (c) personal practice sessions? Specifically, this study will measure (via the Situational Motivational Scale, SIMS) the situational athlete motivational profiles immediately following engaging in each of these specific contexts. Additionally, this study will measure the athlete's contextual motivation (via the Sport Motivation Scale, SMS) as it changes over the entire season. Finally, this study will measure perceived sport climate from both the perspectives of the athletes and coaches (via the Perception of Success Questionnaire, POSQ, the Sport Climate Questionnaire, SCQ and the General Causality Orientations Scale, GCOS) to determine the strength of association of climate to athlete motivational profiles.

Hypotheses

There are differences in motivational profiles of athletes that are high, middle, and low performers across three different contexts, namely, in a game, practice, and personal practice. There is also a relationship between perceived sport climate, athlete motivational profiles, and context specific anxiety.

Null Hypotheses

There are no differences in motivational profiles of athletes that are high, middle, and low performers across three different contexts, namely, in a game, practice, and personal practice. In addition, there is no relationship between perceived sport climate, athlete motivational profiles, and context specific anxiety.

Operational Definitions

High, Middle, and Low Performers – this is determined by the coaches expertise in providing a ranking list of placement of the athletes on each individual sports team.

Practice – any type of training that is required of the entire team by the coach.

Personal Practice – any type of training that the athlete chooses to do of their own free will, on their own time.

Game – any official competition, match, tournament, meet or game that the team or individual will be competing in.

Sport Climate – the setting, environment or atmosphere in which the coaches and athletes participate.

Intrinsic Motivation – behavior engaged in for itself, and the pleasure and satisfaction derived from participation (Vallerand, 2001).

Extrinsic Motivation – performing the behavior in order to derive tangible benefits such as material and social rewards, or to avoid punishment (Vallerand, 2001).

Amotivation – the absence of motivation.

Assumptions

1. The instrumentation will be valid for the college-aged student population.
2. The mental abilities of the subjects will be within the normal range for university students.
3. The subjects will understand the directions.
4. The mental tasks will typify the types of mental tasks that occur in athletics.

Delimitations

1. Subjects will include collegiate athletes of individual sports teams such as cross country, track & field, golf, swimming, diving, tennis, and gymnastics.
2. All the athletes will be taken from Brigham Young University.

Limitations

1. The population comes from Division 1 university college athletes.
2. The majority of the athletes are [male (n=113-140) and female (n=147-180)] Caucasians.
3. The motivational profiles are specific to context and individual sports participants.

Significance/Purpose

The purpose of this study is to determine if motivational profiles differ across ability levels and contexts. If they do, coaches may provide specific reinforcers that create an optimal motivational level specific to the ability level and context to enhance performance.

Chapter 2

Review of Literature

Every individual varies greatly in the enthusiasm they have for different activities. Subordinate motivation is a crucial concern for authority figures and leaders because they are in positions where they can mobilize others to act (Ryan & Deci, 2000b). Most theories assume that people will work toward a goal that they believe contains a desired result for them. Deci et al. (1994) posit that even though certain activities may be uninteresting, people will be motivated to internalize these activities because they are important. The majority of the time, motivation comes from the desired outcome and not from the actual process of the activity.

Motivation

According to Deci and Ryan (2000), to understand motivation one needs to consider the innate psychological needs of the human being: autonomy, competence, and relatedness. Autonomy is the need to perceive behaviors and thoughts as self-chosen. It should be noted that autonomy does not refer to detachment, selfishness, or complete independence, but instead it is "the feeling of volition that can accompany any act, whether dependent or independent, collectivist or individualistic" (Ryan & Deci, 2000a). The second need is competence, or the need to perceive behaviors as effective. The final need is relatedness, the need to perceive that we are successfully connected to those individuals around us (Hollembeak & Amorose, 2005). Because we consider these needs to be innate rather than learned, they drive motivational theories (Deci & Ryan, 2000).

At their best, humans are self-motivated, curious, and inspired to master new things. These are some positives aspects of human nature. However, in adverse surroundings and situations, the human spirit can be diminished or crushed because of social orientation or responsibility inadequacies (Ryan & Deci, 2000b). This is why it is important to provide the best environment and feedback possible to facilitate positive growth and well-being in all individuals.

Because of the benefits of physical activity, motivation is a critical topic in the realm of physical education. Investigating motivation includes the search for the underlying process that causes individuals to begin an activity and then to sustain their participation in it (Frederick & Ryan, 1995). Countless individuals are involved each day in different sports and physical activities, which can result in physical and psychological well-being (Markland, 1999). Being physically active encourages leading a healthy lifestyle. According to the World Health Organization, the term healthy implies "a state of complete physical, mental and social well-being not merely the absence of disease" (WHO, 1997). However, in some cases, negative physical and psychological consequences can be caused by sport participation. The climate or setting that an individual is in can greatly help or hinder their motivational feelings both toward that activity and in life in general (Reinboth & Duda, 2006).

Motivational testing often focuses on athletes because of the influence that they have on society. Pain, rather than pleasure, often dictates their motivation. They need to be thinner or more muscular or do something different in order to gain the right body type (Reinboth, Duda, & Ntoumanis, 2004). Athletes are always in the spotlight; people

watch and critique their every move, and these pressures can, at times, be quite overwhelming. Researchers have questioned if these influences are a positive source of motivation that produce well-balanced athletes. Their research surrounding this question of motivation has been examined in the theoretical framework of self-determination theory (SDT).

Self-Determination Theory

Self-determination theory posits that humans are "proactive organisms whose natural or intrinsic functioning can be either facilitated or impeded by the social context" (Deci et al., 1994). SDT exists on a continuum that describes motivational states in eight levels of self-determined behavior. Starting at the least self-determined end, to most self-determined are amotivation, external regulation, introjected regulation, identified regulation, integrated regulation, intrinsic motivation to experience stimulation, intrinsic motivation to accomplish, and intrinsic motivation to know (Fortier, Vallerand, & Brière, 1995).

Amotivation is merely a lack of motivation, a lack of intuition, or learned helplessness; individuals are neither extrinsically nor intrinsically motivated. The four types of external motivation follow on the continuum: external regulation happens when athletes may perform for a reward or to avoid punishment; introjected regulation occurs when an athlete self-imposes pressure to do something; identified regulation occurs when an individual chooses to perform a task because he or she perceives the activity as being important, even if it is not pleasant. The fourth external motivation level is integrated

regulation, also a choice decision, made not on the activity alone, but also on how the activity relates to the whole self.

Following these external motivation levels on the continuum are the three levels of intrinsic motivation. Intrinsic motivation to experience stimulation occurs when someone engages in an activity for fun, excitement, or sensory pleasure. The next level, intrinsic motivation to accomplish focuses on the joy one gets from creating something, surpassing oneself, or mastering a new skill. And finally, intrinsic motivation to know happens when one participates in the activity merely to explore, to understand, or to learn something new (Fortier et al., 1995; Vallerand & Fortier, 1998). It should be noted, however, that the order of the intrinsic motivation levels remains unclear (Prusak et al. 2006).

Depending on the activity that an individual is doing, it is possible to be in different places on the continuum. For example, where sports are concerned, individuals may be intrinsically motivated to know, meaning that they engage in the activity for the purpose of learning a new skill. However, if that same individual were tested about work, they might be in the identified regulation category. Even though they do not see the activity as being particularly pleasant, they desire the outcome of a paycheck, which motivates them to go to work each day. Considering that extrinsically motivated behaviors are not normally interesting, most people perform such actions because these behaviors are valued, modeled, or prompted by significant others to whom they feel related or attached. This demonstrates that relatedness is very important for internalization (Ryan & Deci, 2000b).

Also, depending on the feedback that an individual receives, an activity that was once extrinsically motivated, could later become, intrinsically motivated. For example, one may learn a sport because of extrinsic motivation, such as parental incentives. However, in time, if that sport provides the basic needs of autonomy, competence, and relatedness for that individual, they can then become intrinsically motivated to continue participation (Vansteenkiste & Deci, 2003). For example, Ryan and Deci (2000b) state that as a child increases in ego development and cognitive capacities, the child's general regulatory style tends to become more self-regulated and internalized over time.

Standage, Duda, Treasure, and Prusak (2003) used a hierarchal model that explains how the continuum of motivation and all of its facets operate on three different levels: situational, contextual, and global. The situational level deals with the here and now of a particular situation; for example, how someone feels at a certain time during a game. The contextual level involves the perception of a certain context such as sports, school, education, or work. The global level refers to how someone normally interacts with the environment as a whole (Standage et al., 2003). These three levels function in a top down or bottom up effect which influences the hierarchal stability. Markland (1999) argues that intrinsic and extrinsic motivation, are determined by environmental and social factors that influence perceptions of self-determination at each of these levels. Markland (1999) also states that the amount of impact that motivational factors will have on a person depends on the strength of the circumstances where the behavior takes place.

Cognitive Evaluation Theory

Within the self-determination framework is the mini-theory of cognitive evaluation (CET). This theory predicts that awards given for an achievement can either undermine or enhance the individual's intrinsic motivation, depending on how the individual perceives the award (Amorose & Horn, 2000). If someone feels that an award was given simply to control behavior, intrinsic motivation is hindered. However, if the award was given as positive reinforcement for competence, the individual's intrinsic motivation is enhanced. Factors that can increase an individual's perception of self-determination and competence, such as positive feedback, are known to also increase intrinsic motivation (Frederick & Ryan, 1995). In other words, the CET framework suggests that the social environment can increase or inhibit the intrinsic motivation of an individual by supporting their psychological needs (Ryan & Deci, 2000b).

Some final influences on motivation from the achievement goals theory are two types of environments: the first is task-involved, and the second is ego-involved. Improving, learning, effort, and task-mastering are the focuses of a task-involved environment. When people are task-involved they focus on the task and learning the skills, rather than demonstrating a high ability level. They can also feel competent in their ability to learn something new and master a skill at their own level. An ego-involved environment places the focus on competition, comparisons, and public evaluations. When someone is ego-involved, the traits of learning, understanding, and improving are merely a means to an end rather than being desired outcomes in and of themselves. An ego-involved person is more concerned about demonstrating superior abilities than their counterpart, a task-involved person, and they are worried about how

they will be compared to others, focusing on outcomes that are out of their control (Reinboth & Duda, 2006). When people's egos or feelings of self-worth are on the line they are very motivated to perform a skill because of the tension and pressure of needing to do well (Vansteenkiste & Deci, 2003). This is not the case in a task-involved environment, as it is more conducive to enhancing intrinsic motivation.

Optimal human functioning occurs when individuals are intrinsically motivated and their basic needs are met. When this happens they experience an increased sense of autonomy, competence, and relatedness (Hollembeak & Amorose, 2005). Ryan and Deci (2000b) state that because different social cultures hold different values, individuals will express their autonomy, relatedness, and competence differently. However, a society that only provides one of these necessities is neglecting others, which will result in some impoverishment of the individuals' well-being (Ryan & Deci, 2000b).

Motivation in Competitive Settings

According to Fortier et al. (1995), competitive sport settings can undermine an athlete's intrinsic motivation; in addition, higher levels of amotivation are found in competitive athletes over recreational athletes. In a competitive environment these athletes are competing to win, an extrinsic motivation, instead of competing to do their best, an intrinsic motivation. Intrinsic motivation can be lost in children as young as first grade due to competitive contexts (Gagne, Ryan, & Bargmann, 2003). Ryan and Deci (2000b) found that extrinsic rewards also inhibit motivation. Any tangible reward that is expected and contingent upon task performance can undermine intrinsic motivation.

It is important for athletes to be in a task-involved environment in order to increase their intrinsic motivation. Generally, this is not accomplished through competition and comparisons. Chantal, Guay, Dobreva-Martinova, and Vallerand (1996) found that athletes who had won medals and titles were more inclined to report pressure, feelings of obligation, and external rewards as their main sources for motivation because of stronger pressures to perform than other athletes who were not as successful. In a study done by Gagne et al. (2003), it was found that sport enjoyment decreased with parental pressure and other sport satisfaction was predicted by positive emotional involvement by parents and coaches. Gagne et al. also state, "A controllingly involved coach or parent will likely foster externally regulated or introjected motivation in an athlete." Studies also show that parents, who are autonomy-supportive, relative to parents who are controlling, have more intrinsically motivated children. In addition, these findings can be generalized to other areas such as music and recreation in which parental support for competence and autonomy enhance more intrinsic motivation (Ryan & Deci, 2000b).

Vansteenkiste and Deci, (2003) provide two possible ways to counteract the negative effects that competition can inflict on intrinsic motivation. The first is to focus on the quality of the performance and give positive feedback about it. This feedback can eliminate the negative feelings about losing a competition and therefore increase intrinsic motivation. The second suggestion is to provide a performance-contingent reward to make up for what they lost in the competition. When someone loses a competition, they get "hit" twice. They lose the competition and they lose the award that goes with

winning. To combat this, Vansteenkiste and Deci suggest that a reward be given merely for good participation in the event rather than solely for winning. This can enhance one's feelings of competence and, in turn, increase intrinsic motivation.

Considering the most optimal form of motivation is intrinsic, researchers have attempted to discover how it develops along the continuum. According to Pelletier, Fortier, Vallerand, Tuson, Brière, & Blais (1995), research supports the premise that "the different types of motivation are associated with increasingly positive consequences as one progresses from amotivation to intrinsic motivation." In their study, Deci et al. (1994) found that the extrinsic motivations of identified regulation and integrated regulation are best supported by "a meaningful rationale, acknowledgment of feelings, and low controllingness." The more athletes see themselves as being self-determined and competent, the more they will display self-determined forms of motivation in sport (Pelletier et al., 1995).

Coaching and Motivation

The various behaviors that coaches exhibit are also strongly related to athletes' perceived competence, relatedness, and autonomy (Hollembeak & Amorose, 2005). Coaches may be responsible for not only the athletes' performance, but also the athletes' persistence in that sport (Mageau & Vallerand, 2003). The way that training is conducted will have a strong influence on athletes (Gagne et al., 2003). By giving athletes options, encouraging self-regulation and providing rationales for requested behaviors, coaches can foster some of the athletes' basic needs (Reinboth et al., 2004). Coaching environments that support autonomy by minimizing threats, avoiding controlling language, and

acknowledging the learners' position have been found to enhance learning, adjustment, test performance, and facilitate autonomous motivation (Vansteenkiste, Simons, Lens, Sheldon, & Deci, 2004).

The coach's behavior can also determine the athletes' motivational level, influencing autonomy, competence, and relatedness. Coaches that use autocratic behavior have athletes who express negative feelings towards relatedness. Any activity that can be framed for the attainment of intrinsic rather than extrinsic goals will lead to better learning and performance (Vansteenkiste et al., 2004).

Self-determination theory can be applied to the context of college athletics in individual sports in position, rankings, and the distinct contexts of practice, personal practice, and game times. When coaches understand the interaction between the performance levels and contexts and the affects they have on athletes' motivational profiles, the coaches can then assess athletes' self-determination and better facilitate a more intrinsically motivated state. They can also know what types of feedback will enhance the satisfaction of the basic human needs that influence motivation in their athletes, namely, competence, autonomy, and relatedness. If these needs remain unrecognized and unsatisfied, athletes can suffer from pathology and ill-being (Ryan & Deci, 2000b). However, aiding the athletes to become more intrinsically motivated will enhance overall performance of the athletes and their general well-being.

According to Pelletier et al., (1995) research needs to evaluate motivation at different points in time to comprehend certain circumstances that may lead to a decrease in athletes' motivation. Therefore, further research needs to be done to determine more

factors that influence athletes' motivational profiles across a broader scale, including rank, position, and setting, and what can be done to facilitate an intrinsically motivating environment.

In summary, it is imperative for parents, teachers, leaders, and coaches to know how different people are motivated in order to provide the best environment possible. Individuals reach optimal human functioning when they are near the intrinsically motivated end of the self-determined continuum. Through a series of task-involved activities instead of ego-involved activities, individuals can satisfy their needs of autonomy, competence, and relatedness, thereby increasing intrinsic motivation. In addition, coaches need to provide positive reinforcement and feedback to encourage motivation in the situational and contextual frameworks. When athletes experience positive influences within these frameworks, their global framework can also be influenced toward a more intrinsically motivated way. All of these factors combined will contribute to an individuals' overall well-being, leading them to be positive, healthy, and intrinsically motivated.

Chapter 3

Methods

The objective of this study is to determine if motivational profiles differ across ability levels and contexts. If they do, coaches may provide specific reinforcers that create an optimal motivational level specific to the ability level and context.

Participants

The population of this study will consist of male and female collegiate athletes (N=260-320) taken from individual sports teams at a western states university.

For this study, males (n= 113-140) and females (n=147-180) from 13 collegiate athletic teams will be used: The men's and women's cross country, track & field, golf, swimming, diving, and tennis, and only the women's gymnastics teams. Each coach will give the primary researcher access to the team.

Instruments

The Situational Motivational Scale (SIMS) will be used to evaluate how the athletes felt about the performance they just completed (Guay & Vallerand, 2000). The Sport Motivational Scale (SMS) will be used to determine contextual motivation (Pelletier et al., 1995). The Perception of Success Questionnaire (POSQ) will be used to establish ego or task disposition (Roberts, Treasure, & Balague, 1998). The Sport Climate Questionnaire (SCQ) will be used to measure the athletes' perception of how supporting of autonomy the coaches are (http://www.psych.rochester.edu/SDT/measures/auton_sport.html). The Sport Anxiety Scale (SAS) will be used to determine the anxiety levels of the athletes (Smith, Smoll, &

Schutz, 1990). The General Causality Orientations Scale (GCOS) will be used to assess the strength of different motivational orientations in the coaches and the strength of association to the athletes' motivational profiles (Deci & Ryan, 1985).

Procedures

Prior to the questionnaire, all participants will receive and return a letter of informed consent, which has been approved by the university IRB. The coaches will provide a high (H), middle (M), and low (L) "rankings list" of their teams both pre and postseason to establish the ability levels of the athletes. The coaches will also complete a pre and postseason GCOS test to assess the strength of their different motivational orientations towards the athletes and to see if it changed over the course of the season.

The SMS, SCQ and POSQ will be combined into one questionnaire for the athletes and will be given pre and postseason. All athletes will continue to participate in their normal practice and competition routines. The SIMS and the SAS questionnaires will be given depending on the teams' schedule during the first third of their season (while hopes are still high and fatigue is not an issue), on three different occasions, (1) after a team practice, (2) after a personal practice, and (3) after a game with the win/loss record being accounted for. The primary researcher will administer the questionnaire to assess the motivational profiles across ability levels in the different contexts.

For the purpose of this study, we will be looking at all of the individual sport teams as a group and not dividing up each sport individually. One reason for this is because with individual team sports, a team win is seen as secondary to a personal win. In addition, the surveys will allow for controlling the differences in the coaches.

Design & Data Analysis

This is a within and between 3 (levels of ability) x 3 (contexts) nested design which will allow further evaluation of interactions between athlete ability level and motivation in different contextual settings so that optimal reinforcers may be provided. Descriptive statistics (means, standard deviation, Cronbach's alpha) will be examined. An ANOVA omnibus test will be used to determine the within and between group differences followed by specific theory driven post hoc comparisons to examine motivational differences across three ability levels and three specific contexts. Next, will be a Tukey follow-up test and an interaction effects test. These tests may demonstrate that competence increases with an increase in ability, success in competition and success in task oriented practice sessions. Finally, a Pearson R correlations test will be used to assess the strength of relationships between selected variables of interest.

Ultimately, this study will result in an examination of (a) between groups differences in motivation based on ability across the various contexts (game, practice and personal practice), (b) pre-to-post differences in athlete and coaches perceptions of the sport climate, and (c) the strength of association between motivational profiles and perceptions of climate.

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Appendix B

Informed Consent and Surveys

The Influence of Performance Level and Context on Collegiate Athlete's MotivationalProfiles

Informed Consent Form

A. Dr. Keven A. Prusak, Professor at Brigham Young University and Shari Smith, MS student at Brigham Young University have requested my participation in a research study at BYU during athletic practices and games. The project title is "The Influence of Performance Level and Context on Collegiate Athletes' Motivational Profiles."

B. I have been informed that the purpose of this project is to determine my motivational profile during three distinct settings. I understand that participation will involve filling out surveys on five different occasions (pre and post season, after personal practice, after team practice and after a competition.) I understand that the surveys will take a total of 50 minutes. I understand that the questions on the survey will pertain to my motivational profile.

C. There are no risks to participating in this study.

D. I understand that possible benefits of participating in this project are: 1) understanding my motivational profile and 2) my coach may understand what motivates me.

E. I understand the results of this project may be published in a journal and or presented at a professional conference, but that my name or identity will not be revealed. In order to keep my name and identity a secret, my name will only be used until all the surveys are completed. Documents will be secured in a locked file where

only Dr. Prusak and the project assistants will have access to this confidential information.

F. I understand that the survey collection will be on five different occasions and that my participation is voluntary. I understand that no penalties will result from non-participation or withdrawal.

G. I have been informed about the project and I understand that any questions I have concerning this project or my participation in it, before or after my consent, will be answered by Dr. Keven Prusak (keven_prusak@byu.edu), Department of Exercise Science, Brigham Young University, Provo, Utah 84606 (801) 422-1560.

H. By clicking on the link and completing the surveys, I have given my consent.

Perception of Success Questionnaire (POSQ)

What does success in sport mean to you? There are no, right or wrong answers.

Select the number that best indicates how you feel, 1 strongly agree – 5 strongly disagree

WHEN PLAYING SPORT, I FEEL MOST SUCCESSFUL WHEN:

	Strongly Agree	Neutral	Strongly Disagree
1. I beat other people	☐	☐	☐
2. I am the best	☐	☐	☐
3. I try hard	☐	☐	☐
4. I really improve	☐	☐	☐
5. I do better than others	☐	☐	☐
6. I show other people I am the best	☐	☐	☐
7. I overcome difficulties	☐	☐	☐
8. I succeed at something I couldn't do before	☐	☐	☐
9. I accomplish something others cannot do	☐	☐	☐
10. I perform to the best of my ability	☐	☐	☐
11. I reach a target I set for myself	☐	☐	☐
12. I am clearly better	☐	☐	☐

Sport Climate Questionnaire (SCQ)

This questionnaire contains items that are related to your experience with your coach (trainer). Coaches have different styles in dealing with athletes, and we would like to know more about how you have felt about your encounters with your coach.

Your responses are confidential. Please be honest and candid.

	Strongly Agree	Neutral	Strongly Disagree
1. I feel that my coach provides me choices and options	☐	☐	☐
2. I feel understood by my coach	☐	☐	☐
3. I am able to be open with my coach while engaged in athletics	☐	☐	☐
4. My coach conveyed confidence in my ability to do well in athletics	☐	☐	☐
5. I feel that my coach accepts me	☐	☐	☐
6. My coach made sure I really understood the goals of my athletic involvement and what I need to do	☐	☐	☐
7. Me coach encouraged me to ask questions	☐	☐	☐
8. I feel a lot of trust in my coach	☐	☐	☐
9. My coach answers my questions fully and carefully	☐	☐	☐
10. My coach listens to how I would like to do things	☐	☐	☐
11. My coach handles peoples emotions very well	☐	☐	☐
12. I feel that my coach cares about me as a person	☐	☐	☐
13. I DON'T feel very good about the way my coach talks to me	☐	☐	☐
14. My coach tries to understand how I see things before suggesting a new way to do things	☐	☐	☐
15. I feel able to share my feelings with my coach	☐	☐	☐

Sport Motivation Scale (SMS)

Using the scales, indicate how well the statement describes how you feel toward sport.

WHY DO YOU PRACTICE YOUR SPORT?

	Just Like Me	Like Me	Somewhat Like Me	Neutral	Not Much Like Me	Not Like Me	Not At All Like Me
1. For the pleasure it gives me to know more about exercise and being healthy	☐	☐	☐	☐	☐	☐	☐
2. I used to have good reasons for practicing my sport, but now I am asking myself if I should continue doing it	☐	☐	☐	☐	☐	☐	☐
3. For the pleasure of discovering new training techniques	☐	☐	☐	☐	☐	☐	☐
4. I don't know anymore; I have the impression that I can't succeed in sports	☐	☐	☐	☐	☐	☐	☐
5. Because it makes me look good in front of other people I know	☐	☐	☐	☐	☐	☐	☐
6. Because in my opinion, it is one of the best ways to hang out with people	☐	☐	☐	☐	☐	☐	☐
7. For the prestige of being good in sports	☐	☐	☐	☐	☐	☐	☐
8. Because it is one of the best ways to develop other parts of myself	☐	☐	☐	☐	☐	☐	☐
9. Because people around me think it is important to be good at sports	☐	☐	☐	☐	☐	☐	☐
10. Because sports are a good way to learn a lot of things which could be useful to me in other areas of my life	☐	☐	☐	☐	☐	☐	☐
11. It is not clear to me anymore; I don't really think I find success in sports	☐	☐	☐	☐	☐	☐	☐

Sport Motivation Scale (SMS)
cont'd

	Just Like Me	Like Me	Somewhat Like Me	Neutral	Not Much Like Me	Not Like Me	Not At All Like Me
12. To show others how good I am in sport activities	☐	☐	☐	☐	☐	☐	☐
13. For the pleasure I feel while learning new exercises and skills in sports	☐	☐	☐	☐	☐	☐	☐
14. Because it is a good way to maintain good relationships with my friends	☐	☐	☐	☐	☐	☐	☐
15. For the pleasure of discovering new performance strategies	☐	☐	☐	☐	☐	☐	☐
16. I often ask myself; I can't seem to achieve the goals that I set for myself in sports	☐	☐	☐	☐	☐	☐	☐

Sport Anxiety Scale (SAS)

A number of statements that athletes have used to describe their thoughts and feelings before or during competition are listed below. Read each statement and then select the number that indicates how you USUALLY feel prior to or during competition. Some athletes feel they should not admit to feelings of nervousness or worry, but such reactions are actually quite common, even among professional athletes. To help us better understand reactions to competition, we ask you to share your true reactions with us. There are, therefore, no right or wrong answers. Do not spend too much time on any one statement.

	Not At All	Somewhat	Moderately So	Very Much So
1. I feel nervous.	☐	☐	☐	☐
2. During competition, I find myself thinking about unrelated things.	☐	☐	☐	☐
3. I have self doubts.	☐	☐	☐	☐
4. My body feels tense.	☐	☐	☐	☐
5. I am concerned that I may not do as well in competition as I could.	☐	☐	☐	☐
6. My mind wanders during sport competition.	☐	☐	☐	☐
7. While performing, I often do not pay attention to what is going on.	☐	☐	☐	☐
8. I feel tense in my stomach.	☐	☐	☐	☐
9. Thoughts of doing poorly interfere with my concentration during competition.	☐	☐	☐	☐
10. I am concerned about choking under pressure.	☐	☐	☐	☐
11. My heart races.	☐	☐	☐	☐
12. I feel my stomach sinking.	☐	☐	☐	☐
13. I'm concerned about performing poorly.	☐	☐	☐	☐
14. I have lapses in concentration during competition because of nervousness.	☐	☐	☐	☐
15. I sometimes find myself trembling before or during a competitive event.	☐	☐	☐	☐
16. I'm worried about reaching my goal.	☐	☐	☐	☐
17. My body feels tight,	☐	☐	☐	☐

Sport Anxiety Scale cont'd	Not At All	Somewhat	Moderately So	Very Much So
18. I'm concerned that others will be disappointed with my performance.	☐	☐	☐	☐
19. My stomach gets upset before or during competition.	☐	☐	☐	☐
20. I'm concerned I won't be able to concentrate.	☐	☐	☐	☐
21. My heart pounds before competition.	☐	☐	☐	☐

Situational Motivational Scale (SIMS)

Read each item carefully. Using the scale below, please select the number that best describes the reason that you are currently engaged in this activity. Answer each item according to the following scale: 1 = correspond not at all; 2 = correspond very little; 3 = correspond a little; 4 = correspond moderately; 5 = correspond enough; 6 = correspond a lot; 7 = correspond exactly.

Q. WHY ARE YOU CURRENTLY ENGAGED IN THIS ACTIVITY?

	Corresponds Not At All	Corresponds Moderately	Corresponds Exactly
1. Because I think that this activity is interesting	☐	☐	☐
2. Because I am doing it for my own good	☐	☐	☐
3. Because I am supposed to do it	☐	☐	☐
4. There may be good reasons to do this activity, but personally I don't see any	☐	☐	☐
5. Because I think that this activity is pleasant	☐	☐	☐
6. Because I think this activity is good for me	☐	☐	☐
7. Because it is something that I have to do	☐	☐	☐
8. I do this activity, but I am not sure if it is worth it	☐	☐	☐
9. Because this activity is fun	☐	☐	☐
10. By personal decision	☐	☐	☐
11. Because I don't have a choice	☐	☐	☐
12. I don't know; I don't see what this activity brings me	☐	☐	☐
13. Because I feel good when doing this activity	☐	☐	☐
14. Because I believe this activity is important for me	☐	☐	☐
15. Because I feel that I have to do it	☐	☐	☐
16. I do this activity, but I am not sure it is a good thing to pursue	☐	☐	☐

General Causality Orientations Scale (GCOS)

On these pages you will find a series of vignettes. Each one describes an incident and lists three ways of responding to it. Please read each vignette and then consider the responses in turn. Think of each response option in terms of how likely it is that you would respond in that way. We all respond in a variety of ways to situations, and probably each response is at least slightly likely for you. If it is very unlikely that you would respond in a way described in a given response, you would select numbers 1 or 2. If it is moderately likely, you would respond in the midrange of numbers; and if it is very likely that you would respond as described, you would select the 6 or 7. Please select one number for each of the three responses for each vignette.

1. You have been offered a new position in a company where you have worked for some time. The first question that is likely to come to mind is

	Very Unlikely	Undecided	Very Likely
a. What if I can't live up to the new responsibility?	☐	☐	☐
b. Will I make more at this position?	☐	☐	☐
c. I wonder if the new work will be interesting.	☐	☐	☐

2. You had a job interview several weeks ago. In the mail you received a form letter which states that the position has been filled. It is likely that you might think

	Very Unlikely	Undecided	Very Likely
a. It's not what you know, but who you know.	☐	☐	☐
b. I'm probably not good enough for the job.	☐	☐	☐
c. Somehow they didn't see my qualifications as matching their needs.	☐	☐	☐

3. You are a plant supervisor and have been charged with the task of allotting coffee breaks to three workers who cannot all break at once. You would likely handle this by

	Very Unlikely	Undecided	Very Likely
a. Telling the three workers the situation and having them work with you on the schedule.	☐	☐	☐
b. Simply assigning times that each can break to avoid any problems.	☐	☐	☐
c. Find out from someone in authority what to do or what was done in the past.	☐	☐	☐

4. You have just received the results of a test you took, and you discovered that you did very poorly. Your initial reaction is likely to be

	Very Unlikely	Undecided	Very Likely
a. "I can't do anything right," and feel sad.	☐	☐	☐
b. "I wonder how it is I did so poorly," I feel disappointed.	☐	☐	☐
c. "That stupid test doesn't show anything," and feel angry.	☐	☐	☐

5. When you and your friend are making plans for Saturday evening, it is likely that you would

	Very Unlikely	Undecided	Very Likely
a. Leave it up to your friend; he/she probably wouldn't want to do what you'd suggest.	☐	☐	☐
b. Each make suggestions and then decide together on something that you both feel like doing.	☐	☐	☐
c. Talk your friend into doing what you want to do.	☐	☐	☐

6. You have been invited to a large party where you know very few people. As you look forward to the evening, you would likely expect that

	Very Unlikely	Undecided	Very Likely
a. You'll try to fit in with whatever is happening in order to have a good time and not look bad.	☐	☐	☐
b. You'll find some people with whom you can relate.	☐	☐	☐
c. You'll probably feel somewhat isolated and unnoticed.	☐	☐	☐

7. You are asked to plan a picnic for yourself and fellow employees. Your style for approaching this project could most likely be characterized as

	Very Unlikely	Undecided	Very Likely
a. Take charge: that is, you would make most of the major decisions yourself.	☐	☐	☐
b. Follow precedent: you're not really up to the task so you'd do it the way it's been done before.	☐	☐	☐
c. Seek participation: get inputs from others who want to make them before you make the final plans.	☐	☐	☐

8. Recently a position opened up at your place of work that could have meant a promotion for you. However, a person you work with was offered the job rather than you. In evaluating the situation, you're likely to think

	Very Unlikely	Undecided	Very Likely
a. You didn't really expect the job; you frequently get passed over.	☐	☐	☐
b. The other person probably "did the right things" politically to get the job.	☐	☐	☐
c. You would probably take a look at factors in your own performance that led you to be passed over.	☐	☐	☐

9. You are embarking on a new career. The most important consideration is likely to be

	Very Unlikely	Undecided	Very Likely
a. Whether you can do the work without getting in over your head.	☐	☐	☐
b. How interested you are in that kind of work.	☐	☐	☐
c. Whether there are good possibilities for advancement.	☐	☐	☐

10. A woman who works for you has generally done an adequate job. However, for the past two weeks her work has not been up to par and she appears to be less actively interested in her work. Your reaction is likely to

	Very Unlikely	Undecided	Very Likely
a. Tell her that her work is below what is expected and that she should start working harder.	☐	☐	☐
b. Ask her about the problem and let her know you are available to help work it out.	☐	☐	☐
c. Not know what to do to get her straightened out.	☐	☐	☐

11. Your company has promoted you to a position in a city far from your present location. As you think about the move you would probably

	Very Unlikely	Undecided	Very Likely
a. Feel interested in the new challenge and a little nervous at the same time.	☐	☐	☐
b. Feel excited about the higher status and salary that is involved.	☐	☐	☐
c. Feel stressed and anxious about the upcoming changes.	☐	☐	☐

12. Within your circle of friends, the one with whom you choose to spend the most time is

	Very Unlikely	Undecided	Very Likely
a. The one with whom you spend the most time exchanging ideas and feelings.	☐	☐	☐
b. The one who is the most popular of them.	☐	☐	☐
c. The one who needs you the most as a friend.	☐	☐	☐

13. You have a school-age daughter. On parents' night the teacher tells you that your daughter is doing poorly and doesn't seem involved in the work. You are likely to

	Very Unlikely	Undecided	Very Likely
a. Talk it over with your daughter to understand further what the problem is.	☐	☐	☐
b. Scold her and hope she does better.	☐	☐	☐
c. Make sure she does the assignments, because she should be working harder.	☐	☐	☐

14. Your friend has a habit that annoys you to the point of making you angry. It is likely that you would

	Very Unlikely	Undecided	Very Likely
a. Point it out each time you notice it, that way maybe he/she will stop doing it.	☐	☐	☐
b. Try to ignore the habit because talking about it won't do any good anyway.	☐	☐	☐
c. Try to understand why your partner does it and why it is so upsetting for you.	☐	☐	☐

15. A close (same-sex) friend of yours has been moody lately, and a couple of times has become very angry with you over "nothing." You might

	Very Unlikely	Undecided	Very Likely
a. Share your observations with him/her and try to find out what is going on for him/her.	☐	☐	☐
b. Ignore it because there's not much you can do about it anyway.	☐	☐	☐
c. Tell him/her that you're willing to spend time together if and only if he/she makes more effort to control him/herself.	☐	☐	☐

16. Your friend's younger sister is a freshman in college. Your friend tells you that she has been doing badly and asks you what he/she should do about it. You advise him/her to

	Very Unlikely	Undecided	Very Likely
a. Talk it over with her and try to see what is going on for her.	☐	☐	☐
b. Not mention it; there's nothing he/she could do about it anyway.	☐	☐	☐
c. Tell her it's important for her to do well, so she should be working harder.	☐	☐	☐

17. You feel that your friend is being inconsiderate. You would probably

	Very Unlikely	Undecided	Very Likely
a. Find an opportunity to explain why it bothers you; he/she may not even realize how much it is bothering you.	☐	☐	☐
b. Say nothing; if your friend really cares about you he/she would understand how you feel.	☐	☐	☐
c. Demand that your friend start being more considerate; otherwise you'll respond in kind.	☐	☐	☐