

A Study of Intrinsic and Extrinsic Motivation Among Division III Athletes

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## **Abstract**

The purpose of this study was to determine the motivational factors of Division III athletes. The goal was help determine whether Division III athletes were intrinsically or extrinsically motivated. The study involved a questionnaire, which was given to the participants that measure their intrinsic and extrinsic motivational scores. This study provided significant results for extrinsic motivated athletes. Research in this area should continue, as there is very little information available, especially amongst Division III athletics.

# **CHAPTER I**

## **INTRODUCTION**

“Motivation can be defined as the process that initiates, guides and maintains goal-oriented behavior. Motivation involves the biological, emotional, social and cognitive forces that trigger behavior” (Hodge, 2007). Everyone has the ability to be motivated by many diverse things. Money could be a motivating factor for a person, making it an extrinsic motivator. People who are extrinsically motivated are looking for some type of reward that is external to the activity such as social, behavioral, or financial activity. People who are intrinsically motivated tend to participate for the pleasure or enjoyment of the activity.

Many issues are factored into attending college whether it is location, scholastic choices, or the cost of attendance. Division III college sport athletes are not able to earn the athletic scholarships available to athletes at Division I or II colleges. They are not assisted financially nor do they receive financial awards for their athletic abilities.

“Studies have demonstrated that athletes who hold an athletic scholarship report lower levels of intrinsic motivation” (Medic, Mack, Wilson, Stakes, 2010). This fact raises the issue of the type of motivation found in athletes at Division III colleges who do not receive scholarships. By understanding the motivation of Division III athletes, possible insight can be found as to how to improve an athletes’ skill through motivational techniques. The focus of this study is to use a self-reporting questionnaire to measure intrinsic and extrinsic motivation among Division III athletes.

### **Statement of the Problem**

The purpose of this research is to determine whether Division III athletes are more motivated by intrinsic or extrinsic factors.

### **Statement of Hypothesis**

The null hypothesis is that there is no significant difference between Intrinsic Motivation Scores and Extrinsic Motivation Scores among Division III athletes.

### **Operational Definitions**

Motivation is an inner drive to behave or act in a certain manner. Motivation can be divided into two types: intrinsic (internal) motivation and extrinsic (external) motivation.

Intrinsic motivation refers to motivation that is driven by enjoyment or satisfaction in the task itself or creates enjoyment and exists within the individual, such as feeling of pride or joy.

Operationally, it is defined as the Intrinsic Motivation score on a self-reporting questionnaire.

Extrinsic motivation refers to the performance of an activity in order to attain an outcome external to the activity, such as financial awards or privileges. Operationally, it is defined as the Extrinsic Motivation score on a self-reporting questionnaire.

## **CHAPTER II**

### **REVIEW OF THE LITERATURE**

#### **Introduction**

This study was designed to explore the relationship between two levels of motivation among college athletes: intrinsic motivation, extrinsic motivation. The study was designed to evaluate if there is a clear difference of motivation among non-scholarship Division III college athletes. Section One, will define different types of motivation and how they are important in college athletics. Section Two, will provide an overview of the different levels of athletic divisions in the National Collegiate Athletic Association. In Section Three, a questionnaire assesses what motivates an athlete.

#### **Types of Motivation and Importance in College Athletics**

“Motivation can be defined as the process that initiates, guides and maintains goal-oriented behavior. Motivation involves the biological, emotional, social and cognitive forces that trigger behavior” (Hodge, 2007). There are three major components to motivation: action, persistence, and intensity. Action involves the decision to participate in the activity. Persistence is the continuance in this activity despite the tasks and obstacles that may exist. Intensity is the concentration and commitment to meet or pursue the goal.

For this research, motivation is broken-down into two sections: intrinsic motivation and extrinsic motivation. “Research has shown that intrinsic motivation (IM) and extrinsic motivation (EM) are important concepts for understanding motivational processes in sport settings” (Medic; et al, 2010). When athletes are intrinsically motivated, they tend to participate out of pleasure or enjoyment. “Achievement goal theory has provided research that indicates a

predominant task goal orientation is associated with high levels of intrinsic motivation and consequently higher levels of self-determination in sport” (Deci, Ryan, 2002). Achievement goal theory is a measure of motivation that has emerged as the primary theoretical framework for understanding motivation to learn. “Achievement goal theory is often separated into two independent goal orientations: mastery and performance. A mastery goal orientation is characterized by a desire for self-improvement and an emphasis on learning. Students with this goal orientation discover intrinsic satisfaction from solving challenging problems. On the other hand, students with a performance goal orientation are motivated by a desire for extrinsic approval, i.e., performing well compared to others and surpassing tangible performance goals” (Canfield & Zastavka, 2010). If athletes are extrinsically participative, they are looking for some type of reward that is external to the activity such as social, behavioral, or financial. “Four sources of extrinsic motivation have been noted in the sport motivation literature and include: external regulation, introjected regulation, identified regulation, and integrated regulation” (Vallerand and Rousseau, 2001). “Externally regulated behaviors reflect the least self-determined form of extrinsic motivation whereby behavior is perceived to be controlled by outside sources. The next point along the continuum is introjected regulation, which refers to behavior that is reinforced through internal pressures such as guilt or anxiety that coerce participation rather than volitionally supporting involvement. Identified and integrated regulation are the most self-determined forms of extrinsic motivation which entail participating in an activity autonomously due to the importance of the outcomes stemming from the behavior or because the activity itself is coherent with other aspects of the self and thereby reflects the person's identity” (Medic et al, 2010).

In reviewing research on ways to improve motivation, the researcher examined the work of

(Davis and Guthrie) “Their research found that boys are more likely to be motivated by intrinsic factors such as competition, social benefits, and fitness in order of importance. Girls are more motivated through an extrinsic factor, such as social benefits. “Social factors should be taken into account because they are posited to have a deep impact on athletes' motivation”

(Gillet, Vallerand, Amoura, Blades, 2010).

There are over thirteen hundred National Collegiate Athletic Association approved college sports teams in the United States (NCAA). Motivation is a major influential component in college athletics. “Coach and athletes agree that motivation is one of the key elements that will facilitate not only performance but also a positive experience in the sport area” (Guay, Vallerand, Blanchard, 148, 2000). Every college athlete is determined and motivated to be the best in their sport and in their division. Each team shares one common goal, winning. Motivation is a significant factor when it comes to winning a competition. If one is not motivated to win, then success is less likely.

### **Divisions of the National Collegiate Athletic Association (NCAA)**

There are three divisions represented by the NCAA: Division I, Division II, and Division III. Each division may assess different set of skill levels and motivation. Since Division I and Division II colleges are allowed to give athletic scholarships, it could be argued that athletes in these divisions of college are more motivated than the players that participate in Division III athletics, where scholarships cannot be given. “Studies have demonstrated that athletes who hold an athletic scholarship report lower levels of intrinsic motivation” (Hodge, 2007). According to (Deci, Ryan, 2002) athletes with athletic scholarships tend to have less of a motivational factor to participate in the sports for enjoyment; which leads to higher extrinsic motivation. “Scholarship males reported that external regulations and introjected regulations can exert a considerable

motivational influence, suggesting that this may occur because scholarship athletes are more likely to experience a greater deal of pressure to perform” (Medic et al., 2010). Scholarships given to young adults add pressure to perform under pressure and should motivate them as an athlete.

Division III athletes may not have particularly strong extrinsic motivation because they are responsible for paying for their tuition, room and board, and food for their college years. With athletes paying their own tuition there may be more motivation to focus on school rather than basketball. The Division III athletes, however, also get some rewards that could be extrinsically motivating such as receiving free gear, going on road trips, and missing school. We can also consider that an athlete’s skill level might be a sign of motivation. Take into account Division I athletes, who are awarded a scholarship because their skill was greater than other participants. Presumably these athletes are highly motivated, as they have worked hard to be skilled players. They can, however receive both intrinsic and extrinsic rewards. A Division III athlete may also work very hard to achieve his or her skill level, but he or she is not likely to receive very lucrative external rewards.

### **Summary**

Motivation can vary throughout a game or competition. Some athletes are more motivated by intrinsic factors while other are more motivated by extrinsic factors. Athletic coaches can increase the performance of their athletes by having a better understanding of their motivators.

## **CHAPTER III**

### **METHODS**

The purpose of this research was to examine differences in intrinsic and extrinsic motivation among student athletes at a Division III college.

#### **Design**

The study used a descriptive design to compare levels of intrinsic and extrinsic motivation. Participants were from a convenience sample based on being a Division III athlete at the college where the researcher is an assistant women's basketball coach. This study used an intrinsic and extrinsic questionnaire to determine motivational types within the group. The dependent variable was Intrinsic and Extrinsic Motivation Scores on the Athlete Motivation Scale.

#### **Participants**

The participants in this study are team members of the women's basketball team, women's lacrosse, and men's basketball team at a Division III school in a suburban area in the mid-Atlantic region. There were forty three participants. Women's basketball provided thirteen participants. (Two women basketball players were absent when the questionnaire was given) Women's lacrosse team provided thirteen athletes that completed the questionnaire. The men's basketball team provided seventeen athletes that completed the questionnaire on all three teams. There were freshmen, sophomore, juniors and seniors.

#### **Instruments**

This study used a Likert questionnaire describing intrinsic and extrinsic motivation. (See Appendix A) The questionnaire was designed by the researcher and included ten questions involving intrinsic motivation and ten questions involving extrinsic motivation.

Each question related to extrinsic and intrinsic motivational qualities. Each question asked the respondent to indicate how well the item described his or her motivation on a scale of 1 to 5. On the scale range, 1 had the meaning of non-significant, while 2 was labeled somewhat significant. Score number 3 pertained to significant value, 4 was considered very significant, while 5 indicated extremely significant. The range of possible scores for each type of motivation was 20-100. The questionnaire generated two scores, an Intrinsic Motivation score and an Extrinsic Motivation score. There is no reliability or validity data for the questionnaire.

### **Procedures**

The questionnaires were administered to each team separately while the team was in a closed room. Each team was given the questionnaire after the first team meeting in the fall semester of the 2013-2104 school year. Athletes were asked to fill in demographic data but to not put their names on the questionnaires. Only participants were in the room while the researcher waited for all the questionnaires to be completed. The researcher let the athletes know she was available to answer questions. The researcher is an assistant coach for the women's basketball team and was well known by the women basketball players and known to some of the other athletes. Athletes were assured that their responses would be confidential.

Intrinsic and Extrinsic Motivation Scores were generated from the athlete responses. Intrinsic and Extrinsic Motivation Scores were compared by non-independent sample  $t$ -tests.

**CHAPTER IV**  
**RESULTS**

The purpose of this study was to compare intrinsic and extrinsic motivational factors among Division III athletes. The scores of self-reporting questionnaire were analyzed based on ratings of two types of motivation: intrinsic and extrinsic. The null hypothesis, that there is no significant difference in intrinsic and extrinsic motivation among Division III athletes on a self-reporting questionnaire was rejected. The mean extrinsic motivation score (Mean = 34.44, SD = 3.53) was significantly higher than the mean intrinsic motivation score (Mean = 32.53, SD = 3.57) [ $t(42) = -2.52, p < .05$ ].

**Table 1. Means, Standard Deviations, and t-Tests Results**

Motivation score	Mean	N	Std. Deviation	t	Sig
Intrinsic	32.53	43	3.57	-2.52	.02*
Extrinsic	34.44	43	2.52		

\*Significant at  $p < .05$

## **CHAPTER V**

### **DISCUSSION**

The results for this study successfully rejected the null hypothesis that stated that there would be no significant difference in intrinsic or extrinsic motivational factors among Division III athletes. The results showed there was a greater extrinsic score among the participants.

#### **Implications of the Results**

The results found that the sample athletes were extrinsically motivated. A coach can learn potential ways to motivate athletes and make them perform to the best of their abilities. Some techniques a coach might use to motivate players extrinsically are by having a “player of the week” where a player receives recognition for their performance. Another type of extrinsic motivation might be a perk for playing well, such as free meals or free gear. Competition or games with winners receiving prizes could also be another way to motivate the athletes.

A coach could also look at the implications for recruiting. By telling potential recruits that each year the team takes a team trip to Puerto Rico, extrinsic motivation might be helpful. Informing a potential recruit that each year the team receives various amounts of gear might be another example of extrinsic motivation.

#### **Theoretical Consequences**

From a theoretical standpoint, this study suggests that it is not just scholarship athletes who are extrinsically motivated. It appears that collegiate athletes tend to be extrinsically motivated at any athletic division level.

### **Threats of Validity**

There were several factors in this study that could have compromised the validity of the results. First, the scale items for the questionnaire were selected based on the judgment of the researcher and were not subjected to statistical tests to identify effective and ineffective items. Another threat related to the self-questionnaire was that there were no validity indices. It is possible that students were not responding consistently because the researcher was a coach. These concerns would have reduced the internal validity of the study. Another concern was the subjects were also selected from one college located in a suburb of the Atlantic coast. By coming from just one school, the sample had limited diversity. Students at other institutions might come from different background influences, such as socioeconomic or cultural differences, that would have influenced motivation scores. The limited diversity of the sample reduces the ability of the results to be generalized to other populations thus reducing the external validity of the study.

### **Connections to Previous Studies/Existing Literature**

With much research, there have been studies involving an administered questionnaire to collegiate athletes. One study examined the differences in intrinsic and extrinsic motivation among male and female athletes. “Their research found that boys are more likely to be motivated by intrinsic factors such as competition, social benefits, and fitness in order of importance. While girls, are more motivated through an extrinsic factor, such as social benefits. “Social factors should be taken into account because they are posited to have a deep impact on athletes' motivation” (Gillet et al, 156-161, 2010).

In (Medic et al, 2007), a specific type of questionnaire was administered, which was the Sports Motivational Scale (SMS). The study aimed for both genders, and to project motivational factors among scholarships athletes. A questionnaire was given to each player. The results of the

study indicated that motivational differences were dependent on athlete scholarship status and gender only for non-self-determined types of motivation.

Another study by (Ryan, Kuhl, Deci, 1977), noted that his study indicated that athletes with athletic scholarships have lower levels of intrinsic motivation. The current results suggest that non-scholarship collegiate athletes also have lower levels of intrinsic motivation.

### **Implications for Future Research**

Many studies have been done on motivation in sports, but not specifically in just Division III athletes. Ideally, several studies on Division III athletes could be performed with a larger and more diverse sample drawn from multiple schools over a broad geographic region.

Future studies could also use a questionnaire with a more sophisticated design such as one that used item analysis for questions on the questionnaire. Perhaps questionnaires would assess the reasoning behind the answer given. Finally, an adult unfamiliar to the participants could administer the questionnaire.

Future research should be conducted with all three athletic divisions: Division I, II, and III. This would allow for a direct comparison of intrinsic and extrinsic motivation levels among athletes at the different collegiate levels.

### **Conclusion/Summary**

Motivation will always play a role in sports. This study rejected the null hypothesis and indicated that for Division III athletes, extrinsic motivation plays a greater role than intrinsic motivation. Although this study provided valuable information about motivation among Division III, non-scholarship athletes, more research needs to be done to discover more about the motivation factors among these athletes.

## Motivation Questionnaire

Date: \_\_\_\_\_

Sport: \_\_\_\_\_

**Please rate how important these aspects of being a collegiate athlete are towards motivating you to be a member of the team.**

- 1) Winning games 1 2 3 4 5
- 2) Cultivating relationships with teammates 1 2 3 4 5
- 3) Setting individual goals 1 2 3 4 5
- 4) The amount of playing time you receive 1 2 3 4 5
- 5) Team parties 1 2 3 4 5
- 6) Free team athletic gear 1 2 3 4 5
- 7) Developing personal skills within your sport 1 2 3 4 5
- 8) Missing class for game days 1 2 3 4 5
- 9) Greater flexibility from professors in turning in assignments since they are aware of travel issues 1 2 3 4 5
- 10) The sense of unity on being a part of a team 1 2 3 4 5
- 11) Being able to represent your college 1 2 3 4 5
- 12) Help making the team better 1 2 3 4 5
- 13) Winning Championships 1 2 3 4 5
- 14) The occasional free meals for games 1 2 3 4 5
- 15) Team bonding activities 1 2 3 4 5
- 16) Taking big trips each year 1 2 3 4 5
- 17) Becoming the best player you can be 1 2 3 4 5
- 18) Praise from coaches 1 2 3 4 5
- 19) Health/well being benefits from exercising 1 2 3 4 5
- 20) Opportunity for leadership roles 1 2 3 4 5

1 = Not Significant

2 = Somewhat Significant

3 = Significant

4 = Very Significant

5 = Extremely Significant

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