

**Emotional Interventions**  
**A Study of Positive Visualization and Coping Strategies at the Elementary Level**

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## **Abstract**

This study sought to determine whether elementary school basketball players could improve their statistical performance through staff led emotional intervention training. A pre-experimental design was used for the study using a pre/post-test assessment strategy. The pre-tests/post-tests measured each student's emotional intelligence level in athletics. Each player's points, assists, and rebounds were examined before and after the emotional intervention training to determine if the training led to an increase in performance on the court. The treatment group received a one hour positive visualization training session once a week for a month. The topics discussed included mental toughness, emotion control, elimination of self-defeating thought, and positive visualization. The results of the post-test indicate there is no significant difference in basketball statistical performance between students who received emotional intervention training and students who did not receive the training.

# **CHAPTER I**

## **INTRODUCTION**

Many youth sports have high stakes, and youth athletes are being held to increasingly stringent standards. The proliferation of this focus on athletic achievement at such a young age has incentivized many components of sport and has motivated many youth athletes and their parents looking for an advantage. One avenue, sports psychology, is being commonly used to improve emotional and cognitive abilities in young athletes. Behavior modification and positive visualization training are just a couple techniques being implemented to increase performance on the field. Research has shown there to be significant benefits for the application of sports psychology on the youth, but it does not always account for the unique characteristics of the youth athlete (Vissek, Harris, & Blom, 2009). The field of sports psychology is relatively new, but with the high stakes associated with success in youth athletics it is becoming increasingly more common.

### **Statement of Problem**

The purpose of this study is to determine whether elementary school student athletes can improve their athletic performance with emotional intervention training that targets positive visualization and coping strategies.

### **Hypothesis**

Student athletes that have access to emotional intervention training will be better equipped to handle the stresses and challenges of athletic participation and in turn will have better statistics.

### **Operational Definition**

The independent variable in this study is the presence of emotional intervention training for the elementary school age student athletes. The groups will be randomly chosen from the participants that sign up to play basketball and give consent to be included in the study. The dependent variable is the ability to control emotion through positive visualization and coping strategies. *Improvement* is defined in this study as the statistical difference subjects receiving intervention versus subjects not receiving it.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

Youth sports have become increasingly popular in the United States since the end of the twentieth century. With the proliferation of organized leagues, stakes in youth athletics are real. Parents put pressure on their children to succeed and emotions run high for many youth athletes. As the stakes become higher young athletes need to discover ways to control the emotions of the contests and harbor them in positive ways. This review of the literature discusses how positive emotions produce positive performance both on the sport's field and in the academic classroom. The first section focuses on emotions involved with youth athletics. The second section describes the effects of participation in sports on the athlete. The third section discusses how emotion affects in-game performance. The fourth section reviews the implications of goal setting on young athletes. The final section highlights how achievement is directly affected by emotion and participation.

#### **Emotion in Youth Athletics:**

There has been an increase in the analysis of performance control in youth sports. This performance control is tied to motives for youth athletes. Researchers have been looking at the motives among different age groups and among genders. Research has suggested that appraisal has a variable affects in a youth sport achievement setting (Robinson & Howe, 1989). Furthermore, there are differences in gender related to emotion. Motivation is tied to achievement and can be affected by emotion. The link to appraisal and the emotion that it creates needs to be analyzed on a different scale,



however. There is need for a more specific analysis of emotion and this model needs to be more sport specific because of the differences in sports.

There are also developmental influences that affect emotion in the sports. There are several areas that account for the developmental emotion in youth athletics. These areas are determining the developmental components of emotion, studying the stress and enjoyment caused by sports, how emotion changes developmentally, and what activities are appropriate to best foster this development (Scanlan, Babkes, & Scanlan, 2005).

Further research suggests that coaching styles also influence the emotional state of an athlete. The study examined the motivational climate and on changes in male and female athletes' cognitive and somatic performance anxiety over the course of a basketball season (Smith, Smoll, & Cumming, 2007). The mastery approach to coaching which utilizes cognitive-behavioral interventions is shown to reduce the anxiety level in athletes. This reduced anxiety lead to fewer self-defeating emotions and better performance (Smith et. al, 2007).

### **The Effects of Participation in Youth Sports:**

For years research has shown that participation in youth athletics is a way to negate many of the inappropriate activities that children can partake in. It teaches lessons that extend beyond the playing field. It also teaches children to make goals and stick to a plan. Sports can also teach children how to control emotional outburst in the classroom. Sports are an outlet for many troubled students. It provides these students with an enjoyable outlet that the classroom may not be. Research has shown that the goals and ideals learned in the sports can be translated to the classroom to reduce emotional outbursts (Crocker, Hoar, McDonough, Kowalski, & Niefer, 2004). One of the best

lessons taught through participation in athletics is how to make constructive peer relationships. These relationships formed through the participation in team sports increase trust. When athletes trust their teammates they are more readily able to set goals. They rely on their teammates for help and can control their emotions more easily with support (Haudenhuyse, Theeboom, & Coalter, 2012).

There are drawbacks to participation in youth sports, however. The increased focus on success at an early age puts added pressure on athletes. They are expected to perform often before they even have the tools to. Overtraining is common and a leading cause of burnout with athletics (Hollander & Meyers, 1995). Several precautions need to be made such as multi-sport exposure and down time to ensure that negative self-defeating emotions do not take over (Hollander & Meyers, 1995).

### **How Emotion Affects In-game Performance:**

In game performance is affected by many factors. One of the biggest factors is goal setting. Another maybe even more pervasive is the emotional state of the athlete. Some emotions are beneficial to an athlete's performance and some are not. Several emotions can be both, but need to be harnessed. An example of this would be aggression. Often this emotion can motivate, but can take control of an athlete during a contest and ruin performance. Research has shown that this emotion can be reduced by training and counseling (Lauer, 2009). This reduction in aggression during contests enables athletes to think more clearly and positively affects their performance.

Other studies suggest that emotion has a whole needs to be regulated during sports. Emotion's very existence needs to be studied, and for an athlete to perform at a peak level emotion needs to be controlled (Uphill, Lane, & Jones, 2012). The key

emotions that need to be measured are anxiety, embarrassment, anger, and excitement (Uphill et al., 2012). When these emotions are understood and harnessed an athlete has a better chance to focus on the dynamics of the contest and in turn be successful. A 2013 study by McCarthy, Allen, and Jones found that anxiety effects concentration in all of the studied athletes whereas the emotions of anger and happiness affected athletes differently depending on age. The study also found that athletes reporting more thoughts of escape during a sports event were less successful in competition (McCarthy et al., 2013). These thoughts of escape were caused by the prevalence of self-defeating emotions.

Mental toughness is a quality that can manage negative self-defeating emotion in athletics. A 2012 study with 10-18 year old cricketers portrayed this strategy. The researchers found that cricketers with high levels of mental toughness reported possession of more developmental assets and lower levels of negative emotional states when compared with cricketers with the moderate levels of mental toughness (Gucciardi & Jones, 2012). This study suggests that the development of mental toughness helps to control emotion and produces optimal performance.

### **The Implications of Goal Setting On Emotion in Youth Sports**

There is research to suggest that goal setting is one of the biggest causes of success, even in youth sports. Too often emotion gets in the way of these goals. There is a connection among competence, both actual and perceived, an individual's goals and the perceived motivation (Bortoli, Bertollo, Comani, & Robazza, 2011). There is also a connection between positive motivation and cognition and other aspects of sports such as bodily reaction and motivation. This results in varying achievement levels. The research

suggests that perceptions of ability in a sport are the strongest predictors of emotional state (Bortoli et al., 2011).

Goal setting is an important predictor of achievement in athletics. These goals have certain characteristics that affect emotion (Graham, Kowalski, & Crocker, 2002). The goals are contingent upon how athletes perceive their ability. Research suggests that emotions can affect perceived performance and these perceptions can affect the match outcome of a sport (Graham et al., 2002).

### **Sports Participation and Emotion Related to Achievement**

The push for achievement on the field to carry over into the classroom has become increasingly prevalent because of the increase of high states testing in our schools. Much of the research is currently looking at how achievement goals are related to achievement emotions (Huang, 2011). When the emotions are understood, there is more ability to help youth athletes control their emotions. Many athletes that see success on the playing field can translate this into the classroom. The key to achievement is harnessing emotion. When this is completed athletes are in more control of their achievement and have a better self-image. This helps children gain confidence in the classroom

The emotional state of youth athletes is being used to analyze individual trends into adulthood. The ability to control emotions in sport is being used to predict future success. A recent study has examined the growing use of predicting the athletic success of youth athletes through the use of a physiological tool called talent identification surveys (Anshel & Lidor, 2012). These predictive tools are controversial and are highly criticized because many studies fail to provide accurate definitions, follow faulty

experimental procedures, and tend to contain inherent bias in the subject identification stage.

### **Summary**

Emotion is a key factor in the level of success obtained in athletics. Negative self-defeating behaviors have a large impact on the goal setting needed to be successful. When athletes learn how to constructively control their emotions they are more prone to succeed. Success on the playing field can also translate to success in the classroom. When youth athletes see success it can be replicated during academics. The same emotional control techniques can be applied.

## **CHAPTER III**

### **METHODS**

The purpose of this study was to examine if emotional modification training will affect the emotional state and athletic performance of third, fourth, and fifth grade elementary school students in an elementary basketball league.

#### **Design**

The study was a pre-experimental design using a pre- and post-test measure which included a survey as well as selected performance statistics in order to examine the effect of emotional modification training.

#### **Participants**

The participants consisted of students in three 3<sup>rd</sup>, three 4<sup>th</sup>, and five 5<sup>th</sup> classes. The students were students from the nine homerooms that elected to play basketball and volunteered for the study. A convenience sample was utilized as the classes were the nine elementary homerooms that were eligible to play basketball in the researcher's school.

#### **Instrument**

There were two instruments used for data collection. The first instrument was an emotional performance survey. This survey is designed to measure the emotional state of athletes before and after the emotional modification training. Participants were asked to self-rate their emotional maturity and how it affected their performance by completing an existing emotional survey with multiple questions scored using a Likert scale

The second instrument was a researcher created statistic tracker. This statistic tracker recorded each subject's performance throughout the season. It includes various statistical measurements common to the game of basketball. For purposes of this study, the selected measures were points per game, assists per game, and rebounds per game. These measurements were examined pre- and post- intervention.

### **Procedures**

This study was conducted to investigate the role of emotion in the athletic performance of elementary age basketball players. Subjects volunteered for the elementary basketball season and gave consent to be included in the study.

Subjects that volunteered for the basketball season and the study were randomly assigned into two groups, the experimental and controls groups. Students in both groups were given an emotional maturity survey. Subjects were asked to self-rate themselves on several questions addressing their emotional state with playing sports. This survey would be used to identify trends in how students viewed their emotional maturity in athletics. This survey would be given both before and after the emotional modification training.

In order to investigate the effect of emotion on athletic performance the experimental group was enrolled in a four week emotion modification class. The goal of the class was to provide student athletes positive visualization and coping strategies while playing basketball. Students were trained on healthy ways to deal with the outside stresses of athletics which include, other athletes, fans, parental expectations, and social comparison. Internal coping strategies were also taught in order for the athletes to maintain a positive outlook on their performance. A final

point of emphasis was mental toughness. Research has proven that mental toughness is one of the most important factors in increased performance in athletics. The class was taught once a week for a month. The sessions were an hour long and were taught by the school psychologist.

The second major piece of the study was the researcher tracked student performance statistics. The purpose of this was to measure the performance of the student athletes pre- and post-intervention in order to identify trends for both the control and the experimental group. Each participant's statistics for all three measures were recorded and averaged for the three games prior to the intervention training to serve as the baseline. The same was done for the three games after the emotional intervention training and compared to the baseline data.



## CHAPTER IV

### RESULTS

This study aims to measure whether elementary school basketball players improved their performance through staff directed emotional intervention sessions. Two groups were randomly assigned and the treatment groups received weekly emotional intervention training for a month. All participants were given an emotional inventory survey before and after the interventions. Participant statistics were also recorded for points per game, assists, and rebounds. The statistics were collected and averaged for the three games before intervention training and the three games after the invention training.

Several independent t-tests were run to see if there were any significant differences between the control and experimental group on the sports emotion test (both before and after the intervention), and on the athletic performance of students. Table 1 shows the means and standard deviations of the measures included in the study.

Table 1. Means and Standard Deviations of the Study Measures

Treatment Group	Sports Emotion Pre-Test	Sport Emotion Post-Test	Points Per Game	Assists Per Game	Rebounds Per Game
Measure Group	16.50 (2.42)	19.82 (2.78)	4.51 (6.22)	1.50 (1.04)	2.67 (2.65)
Control Group	19.67 (4.71)	21.50 (4.97)	1.36 (1.63)	0.67 (1.21)	1.67 (1.86)

An independent t-test was run to see if there were any differences between the groups on the Sports Emotion Test before or after the intervention., Results indicated no significant difference before [  $t(10) = -1.462, p > .05$ ] or after [  $t(10) = -.716, p > .05$ ] the intervention.

An independent t-test was run on both groups' stats to see if there were significant differences in athletic performance based on the intervention. Results indicated no significant difference in points scored per game [ $t(10) = 1.198$ ,  $P > .05$ ], assist per game [ $t(10) = 1.27$ ,  $p > .05$ ], or rebounds per game [ $t(10) = 1.916$ ,  $p > .05$ ]. These results and their implications will be discussed in the next chapter.

## **CHAPTER V**

### **DISCUSSION**

There was no significant evidence to support that student athletes with access to emotional intervention training will be better equipped to handle the stresses and challenges of athletic participation and in turn better statistics. Even though there was an increase in the self-rating score of treatment subjects on the emotional intervention survey, there was not significant evidence to support that these interventions improved statistics.

#### **Threats to Validity**

There are several potential threats to the validity of this study. Internal sources include flaws in design such as the length of the study, the selection of the intervention teaching materials, and the selection process of the participants. External threats of validity include the possibility of finding different results with a larger sample size and the potential of varying emotional maturity in students from different environments.

The length of emotional training session time might be a factor limiting the increase in statistical data. Students only received four hours of emotional training time. Because of limited non-instructional time and staffing shortages time with the subjects was difficult to secure. Training had to be done during school, and creating a universal schedule across grade levels was difficult. Had there been more time for the training sessions the results might reveal a larger increase in emotional self-assessment and statistics.

For each emotional intervention session an article was selected to provide background knowledge and talking points for the training facilitator. These articles were

selected from reputable sources and focused on the skill for that session. It is possible that the level of these readings was not developmentally appropriate for the elementary school subjects. The reading included complex subject matter that was geared toward high school and college athletes. Perhaps readings on a more developmentally appropriate level would have yielded different results.

The subject selection process was another potential threat of validity. Subjects consisted of students from the elementary school basketball team. This team consisted of students from third to fifth grade. It is possible that there is too great of a maturity level difference third and fifth graders to include them in the same study. Also, including the middle school basketball team in the study would have increased the age range and might yielded a more diverse set of results.

External threats to validity include the ability to yield similar result if this study was performed with a difference sample size. This study was conducted at one school, with a small number of students, in an urban school district. The small sample size might have limited the results. The area of the school and the sports selected might have also limited the results of the emotional intervention.

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

Other studies have aimed to capture the relationship between positive mental visualization and performance in sport. A similar study explored the relationship between athletics and self-reported positive emotional well-being. Two-hundred and three adolescents were polled on the relationship between their participation in athletics and their emotional wellbeing. The study found that adolescents that participated in sport had

a general higher emotional wellbeing rating and performed better in the sport (Donaldson & Ronan, 2006).

### **Implications for Further Research**

There is a growing amount of research to suggest that participation in athletics improves an individual's self-concept. Positive visualization techniques, the elimination of negative thoughts, and the development of mental toughness increase the likelihood of performance in athletics. These skills are not only reserved for the playing field and have also been shown to increase mental and social wellbeing as well as academic achievement. There is still much research to be done on the implication of mental toughness, emotion control, and positive visualization in youth athletics. Analyzing the data between ethnicities and socio-economic groups could serve as an even greater revelation into the effects of emotion on performance. In addition, studying trends between academic and athletic achievement compared to emotional intelligence could improve intervention methods for young athletes.

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