

RUNNING HEAD: Athlete vs Non-Athlete GPA's

A COMPARISON OF ATHLETES VS NON ATHLETES GRADE POINT AVERAGE

By

KARA FLEMING

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Professional Education Faculty

Northwest Missouri State University Missouri

Department of Professional Education

College of Education and Human Services

Maryville, MO 64468

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ABSTRACT

This study was completed to analyze the grade point average of students who participate in athletics compared to the students who do not. The statistics for this research were from a suburban school district's 2015 graduating class of 393 students. Microsoft Excel and A Statistical Program (ASP) were used to analyze the data provided from Power School. A t-test was used to challenge the null hypothesis. The results showed that student athletes (3.28) have a significantly higher GPA in comparison to non-student athletes (2.98).

INTRODUCTION

Background, issues and concerns.

According to U.S. News, the Midwestern public high school is ranked 6th in the state of Missouri (U.S. News, 2015). The student body is made up of 1,713 students and 110 teachers. There are 393 students in the graduating class of 2015. One hundred and forty one of them are involved with at least one athletic program. Nearly 36% of the senior class at this school participated in athletics during their senior year. The study involved gathering data from each student who graduating in 2015. Ethnicity, attendance, and lunch status were all taken into account to help analyze if the students who participated in athletics had a higher GPA than the students who did not.

In order to be on an athletic team, you must be passing all of your current classes, and you must have passed all of your classes the semester prior to your sports season. The word "student" in student athlete comes first for a reason. The students need to learn how to be responsible within the classroom, have high attendance, and time management skills. These characteristics are all instilled in athletes because they must perform in the classroom in order to play on the field.

Consequently there are negative factors that affect an athlete's success in the classroom. Instead of putting the necessary time into studying and completing homework, the athletes spend a majority of their free time on the practice field and participating in games.

There are a few sports that remove the student athlete from the classroom setting due to travel time, thus limiting their ability to partake in all lectures, notes, and other classroom activities. This can be difficult for a student athlete to repeatedly miss the same class and use what little time they have catching up with the material they have missed.

Practice under investigation.

The practice under investigation is analyzing the grade point averages of both students who are involved with athletics and students who are not.

School policy to be informed by study.

In order to participate on an athletics team, students must meet several requirements. Students must not be failing any classes during the sports season, or have failed any classes in the previous semester. Students also must have turned in a physical within a year of participating in a sport. Last, students must be at school to participate in competition. However there are exceptions, but they must be approved by the school AD. A student may attend a funeral, or go to a doctor appointment. A student may not participate if they are in ISS, and they must attend a full day of school if having a day of OSS before participating. Each sport has their individual rules as well, but most include conducting themselves in a way that is positively representative of their sport and school.

Conceptual Underpinning.

The purpose of this study is to determine if students who participate in athletics have a higher GPA than students who do not. Other variables that are analyzed throughout this study are attendance, ethnicity, and free and reduced lunch status. These contributing factors also play a key role in demonstrating that athletics has a positive effect on a high school student. In order to take part in a sports program, students are held to a higher level in the school setting. The goals a student athlete sets for him/herself must correlate with the requirements of the school's athletic department. Along with the accountability that is fostered by the coaches and teammates, the student feels obligated to reach these goals. All these factors provide extra incentive to athletes that non student athletes are not afforded. Due to contributing factors that guide the development of athletes, the grade point average of athletes will be higher than non-athletes.

Statement of the Problem

A students' rate of classroom achievement is undetermined by the involvement in sports programs within the high school setting. Three hundred and ninety three students were used for the research of this study. These numbers will determine how athletics affects student achievement.

Purpose of the Study

The purpose of the study is to determine if there is a significant difference in the GPA of student athlete's vs. non student athletes.

Research Questions

Is there a significant difference in GPA between students who participate in athletics and students who do not participate in athletics?

Null hypotheses

A student who is not involved in athletics has a lower GPA than a student who is involved in an athletics program.

Anticipated benefits of the study

The data from this research will benefit schools by acknowledging that sports is valuable to a high school student in many ways. During the pre-season coaches meeting with parents, the Athletic Director will have concrete data to demonstrate the success rate of athletes in the classroom. Although students find themselves maximizing their time management skills while playing a sport, the positive reinforcement from athletics is substantial.

Definition of terms

Student-athlete: participant in an organized competitive sport sponsored by the educational institution in which he or she is enrolled.

GPA- grade point average. It is a total of all the student's grades they have received in high school and an average of them.

MSHSAA- Missouri State High School Activities Association's

ASP: A Statistical Package

Summary

Data was taken from a Midwestern suburban school district's graduating class of 2015. This school district offers 20 athletic programs for the fall, winter, and spring seasons. A little over one third of the senior class participated in at least one sport in the 2014-2015 school year. Out of the highest GPA held by 18 students, 12 of them were athletes. The research will examine the role that athletics plays in academics, and determine if participating in a sport will negatively impact their academics or benefit them.

In order to participate in athletics the student will need to meet the required standards set by the state and school, and have good attendance. This study will show that a student athlete's success in the classroom can be dictated by their desire to participate in sports. Joining a sports team requires more than athleticism. Athletics teaches students they must be organized, responsible, punctual, and dedicated to all aspects of the school setting.

The purpose of this study is to show parents, administrators, teachers, and the community that students are responsive to the role that athletics has on their academics. The research question analyzed will also help show the significant affect sports can have on students. The descriptive analysis and t-test will provide statistical data over student athletes versus non-student athletes' GPA's.

Review of Literature

After reviewing numerous articles, it has become apparent that athletes who strive for success in athletics must also strive for success in the classroom. Whether this be through consistent attendance, academic achievement, or an aspiration for continuing education, most articles stated that athletics are a positive influence on a student's career. The articles that disagreed argued that time management and commitment can be a struggle and can also lead to failing grades.

Across the U.S, almost 60 percent of all high school students' play on a school sponsored team (Gorman, 2014). The most basic reason for joining a sports team is because it gives a child something to do. Sports are healthy outlets for students to gain positive influences, and learn lifelong characteristics. Students who are involved and engaged are less likely to become addicted to bad habits (Dowshen, 2013). Not only does sports veer you down the right path, it brings you along with like-minded peers.

Student athletes perform at a higher level in the classroom due to the simple fact that they have requirements which state if they do not perform adequately in the classroom, they will not be allowed to perform on the field. Missouri State High School Activities Association's (MSHSAA) academic policy is, "You must have earned, the preceding semester of attendance, a minimum of 3.0 units of credit or have earned credit in 80% of the maximum allowable classes in which any student can be enrolled in the semester, whichever is GREATER, at your school." (MSHSAA, 2015, #4. Academics).

These standards set an obtainable goal for all student athletes to reach if they want to partake on the sports team.

Obtaining a required GPA is not the only advantage for athletes when it comes to being held to a higher standard. Playing high school sports increases the odds of graduating from college compared to non-athletes by 41% (Gorman, 2014). Student athletes with a vision of receiving a scholarship are more likely to stay on top of their studies. The NCAA is raising their GPA requirements from 2.0 to 2.3 in the upcoming year, which sends a strong message to students that academics need to be a priority to attend college and play sports (Stegall, 2012).

Another requirement to participate in sports deals with attendance. Students who are absent from school typically are not allowed to practice, and may not be eligible to play in the upcoming game. Some view this as a reason athletes miss less school (Gorton, 2010). Research supports the belief that student athletes have a higher attendance rate compared to non-athletes.

Not all research has been positive. A study done in 1991 by Maloney and McCormick was conducted during and out of season to determine if an athlete's time commitment had a negative effect on their grades (Forster, 2012). The results showed that "athletes get a letter grade worse than their non-athlete counterparts in 30% of the classes they take during their sport season." (Forster, 2012, p. 2). Accommodations such as study halls and tutorial services can be suggested to an athlete struggling academically. This situation is a learning opportunity for the student to acquire how to balance their responsibilities evenly.

Almost all high schools in the United States offer some type of academic, musical, athletic, or artistic outlet for students to participate in. "These activities offer opportunities for students to learn the values of teamwork, individual and group responsibility, physical strength and endurance, competition, diversity, and a sense of culture and community. Extracurricular activities provide a channel for reinforcing the lessons learned in the classroom, offering students the opportunity to apply academic skills in a real-world context, and are thus considered part of a well-rounded education"(O'Brien,1995, p. 1). This proves that extracurricular activities assist students in having better attendance, higher academic achievement, and more aspirations for continuing education after high school.

Research Methods

Research Design

The data for this study was collected through PowerSchool. While GPA was the main results needed, attendance, gender, and ethnicity were also recorded. A T-Test and Descriptive analysis were also used in the research design. The independent variable was an athlete vs. non-athletes. The dependent variable was the GPA. The alpha level for the t-test was 0.25.

Study Group Description

The study group for this research was the graduating class of 2015 in a Midwestern suburban high school. There were 384 students in this study, 140 of them were student athletes. Out of the 384 students, 204 were male and 180 were females. The free and reduced lunch rate is 37% at this school.

Data Collection and Instrumentation

The data for this study was provided by the high school Power School program. This data was sent through excel with their name and GPA in alphabetical order. One list was of athletes, the other with non-athletes.

Statistical Analysis Methods

A Statistical Package was used to complete the t-test analysis. Microsoft Excel was used for the Descriptive Analysis portion of the study. The alpha level is set at 0.25.

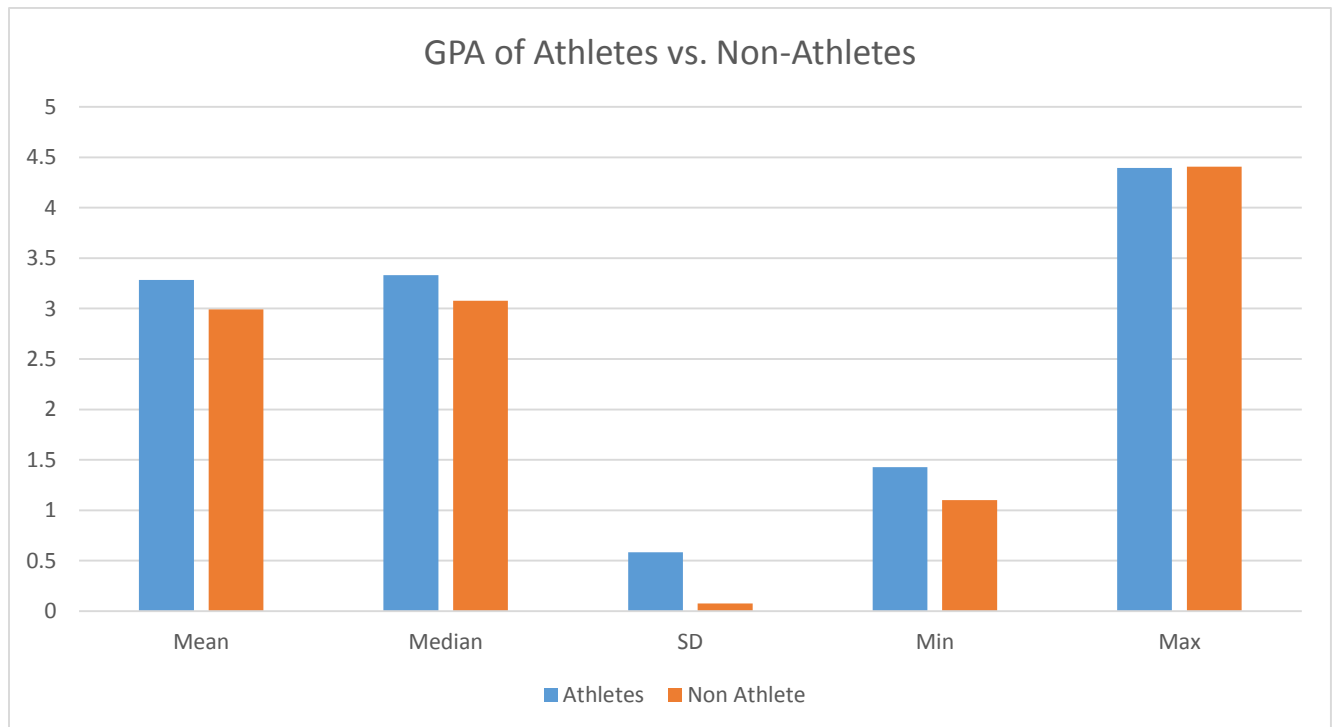
FINDINGS

Test Analysis Results for GPA of Athletes vs. Non-Athletes

Source	Mean	Mean D	t-test	df	p-value
X=GPA of non-athletes (245)	2.99				
Y=GPA of athletes (141)	3.28	-0.14	-2.12	197	0.029

Note: Significant when $p < 0.025$

A Statistical Package was used to complete the T-Test shown above. There were 386 student's altogether, 245 non-athletes and 141 student athletes. X represents the GPA of non-athletes, whose GPA was an average of 2.99, while Y represents the GPA of athletes and their average GPA was 3.28. The P-Value is 0.029. The P-Value is less than the alpha level of .025. Therefore, there is a significant difference in the GPA of athletes vs. non-athletes. The student athletes from the graduating class of 2015 performed at a higher rate than the non-athletes.



The chart above is a descriptive analysis showing the difference between the GPA of athletes and non-athletes. The athletes are represented in blue, while the non-athletes are represented in orange. The mean, median, standard deviation, minimum, and maximum are located on the x axis of the graph, while the GPA calculations are listed on the y axis. The mean GPA for athletes is 3.28. The mean GPA for non-athletes is a 2.99. The average GPA of athletes is .29 points higher than the GPA of non-athletes. The median GPA for athletes is 3.33, while non-athletes are at a 3.08. Again, the athletes median GPA is significantly higher than the non-athletes by .25. The standard deviation for non-athletes is .59, while non-athletes are at a .08. Since the school in research provides multiple AP and college level courses, students can receive above a 4.0 GPA. The maximum GPA for athletes was a 4.39, while the non-athletes maximum was a 4.40. There were 16 students athletes who received a 4.0 or higher for the GPA, and the same goes for non-student athletes. There were only the minimum GPA for athletes was a 1.4, and the lowest GPA for the non-athletes was a 1.1. In comparison to the closeness of the maximum GPA's, the difference between the minimum GPA's is significant.

Conclusion

The null hypothesis stated that there was no significant difference between the GPA of athletes compared to non-athletes. The outcome of the research rejected the null hypothesis because there was a significant difference between the GPA of athletes vs. non-athletes. The sample size of the study was 386. There were 245 non student athletes and 141 student athletes in the 2015 graduating class. Most articles under review had similar findings; student athletes had higher academic performance than non-athletes. Participants in athletics confirm that they are able to surpass their non-active peers in the classroom, even with the demands of their sport's requirements.

There are numerous factors that contribute as to why athletes have higher GPA's than non-athletes. Every school district has guidelines that an athlete must obey in order to participate. These guidelines include a specific GPA, and a high attendance percentage. Athletes can be as competitive in the classroom, as they are in their sport. Thus achieving a higher GPA, and reaching attendance standards.

Through the collected data, minority students who participate in athletics have an average of .4 higher GPAs. There wasn't as big of a gap when comparing athletes vs. non-athletes GPA's of free and reduced lunch students. This may be due to the fact that a participation fee and personal equipment is an expense that these students might not be able to afford. The conceptual underpinning was proved by the data that although there are other contributing factors, students participating in athletics have a higher GPA.

The relationship side of sports can often be swept under the rug because there is no substantial data, but the friendships built from the athlete's teammates and coaches have a large impact on the student's performance on and off the field. A sports team can feel like a family; with that family comes responsibility, encouragement, and accountability. Most coaches are found as a leading positive influence on today's youth.

As a result of the collected research and data, students should be influenced to engage in a school athletic program. The overwhelming time commitment has no comparison to the benefits of being involved on a sports team. The camaraderie and school pride gained is irreplaceable. The rewarding character traits that are developed in an athlete will be a lifelong advantages.

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