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## A Comparative Study Of Grades Between Athletes And Non-Athletes In District 3 AAA of The State Interscholastic League Of Texas

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A COMPARATIVE STUDY OF GRADES BETWEEN  
ATHLETES AND NON-ATHLETES IN DISTRICT  
3 AAA OF THE STATE INTERSCHOLASTIC  
LEAGUE OF TEXAS



HAMPTON

1963

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A COMPARATIVE STUDY OF GRADES  
BETWEEN ATHLETES AND NON-ATHLETES IN DISTRICT  
3 AAA OF THE STATE INTERSCHOLASTIC LEAGUE  
OF TEXAS

THESIS

PRESENTED TO THE FACULTY OF  
PRAIRIE VIEW A. AND M. COLLEGE IN PARTIAL  
FULFILLMENT OF THE REQUIREMENT

FOR THE DEGREE OF  
MASTER OF SCIENCE

*GV345  
H35*

BY

HERBERT S. HAMPTON  
PRAIRIE VIEW, TEXAS  
AUGUST, 1963



A COMPARATIVE STUDY OF GRADES  
BETWEEN ATHLETES AND NON-ATHLETES IN DISTRICT  
3 AAA OF THE STATE INTERSCHOLASTIC LEAGUE  
OF TEXAS



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Herbert S. Hampton



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**DEDICATION**

The writer dedicates this paper to his wife, Myrtle, with grateful appreciation for help in the grammatical construction of this paper.

H. S. H.

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CHAPTER  
INTRODUCTION

For years educators have been concerned about the effect of athletic participation on the scholastic grades of athletes. They have wondered if the number of sports participated in should be limited. Such questions as: Is the curriculum too rigid? Is there enough time being spent on the development of athletics? Or, is it that the participants don't have the ability to think well. These and countless other questions remain unanswered. All of these things have left questions in the mind of educators as to which has the greater influence upon athletic success, superior physical material or the ability to adjust to new situations?

The curricula is being broadened annually to help meet the needs of the youth in our rapid changing times. The curriculum must be arranged to meet this challenge of the change. Educators are seeking means, methods, and standards whereby tomorrow's leaders may be prepared to keep pace with the space era. If we fail to prepare our young people, we have not completed the task for which we have dedicated ourselves. We as educators must meet the challenge of the present age and anticipate that of the future, and by so doing prepare our young people to live useful lives in the present and in times to come during their entire life time.

The objective of the schools of this age is to prepare the student, mentally, socially, academically, and physically for the vocation he may pursue after graduation. The literature reveals that administrators want to provide a program of such nature, that it will allow



pupils to participate in whatever outside of the class room activities, under school supervision, they may desire. It is with these mentioned facts in mind that have led the writer in the direction of this study.

#### THE PROBLEM

With the questions and facts mentioned above in mind, the problem is to determine whether there is any difference in the grades of athletes as compared with the grades of non-athletes.

#### THE PURPOSE OF THIS STUDY

The literature presents much information to the effect, that educators seem to agree with the general public in thought if not in action, that holds that athletics are over-emphasized. on the other hand, a large segment of the public supports competitive athletics programs because of a desire for entertainment. In view of this, it is hoped that this study will help educators and public supporters to form opinions which will be based on evidence rather than that of prejudice or self interest. It is also hoped that this study will help those educators who feel that academic work is of primary importance and in the process will weigh the values of athletics in terms of scholastic advancement. And further, this study might also help orientate those who think that athletics are of primary importance in respect to academic achievement. Since there has been constant controversy about the merits and demerits of athletics, it is also thought that this study will show whether the athletes of district 3 AAA are below, on the level with, or above the average academic level of their classmates, in the areas considered.



### LIMITATIONS OF THE STUDY

This study is confined to the male students who matriculated in the high schools making up District 3 AAA of the Interscholastic League of Texas, for the school years, 1959-1961 inclusively; Further, only those subjects which carry one unit credit per year will be considered. Nextly, attention will be placed only on the number of sports in which the athlete participated rather than emphasizing any particular sport. In this study comparisons are also made in the areas of membership in honor societies, attendance, intelligence quotients, English, and participation in extracurricular activities not of athletic nature.

### METHODOLOGY

This study is based on comparison of athletes and non-athletes in several areas, and they are as follows: Grades, intelligence quotients, attendance records, membership in honor societies, and participation in other special activities. The data are primarily statistical and at least some amount of variability and error can be expected.

The students' grades in solid courses for the three years of high school are taken from the files of each school. An "A" is recorded as a 5, a "B" is recorded as a 4, a "C" is recorded as a 3, a "D" is recorded as a 2, and a "F" is recorded as a 1. The numbers were added together and divided by the number of grades received. The quotient received comprises the student's index number. The average index number is also taken for the group of athletes, and non-athletes. The dif



ference in the index number is the basis from which the conclusions are drawn.

Comparison of absences were given the same consideration as grades. The comparison in the other areas, already mentioned, also receive attention in this report.

The athletes are also indexed according to the sport in which they participated, football, basketball, baseball, tennis, or track. The index average for each sport form basis for this part of the report.

The final conclusions of this study were drawn from the assembled data which have been taken from the high school files of the 1962 senior boys of District 3 AAA.

There are eight schools comprising District 3 AAA as set up by the Texas Interscholastic League of Prairie View A. and M. College. Namely, Carthage, Gladewater, Henderson, Jacksonville, Kilgore, Lufkin, Nacogdoches, and Pittsburg. The schools are located in the heart of East Texas. The greatest distance separating any two schools in this district is 125 miles.

The general industrial activities of this area range from farming to oil production area. Most of the parents of the athletes and non-athletes included in this study are in the low to medium income bracket, with annual salaries ranging from approximately two thousand dollars to five thousand dollars.

Schools are classified according to the number of students in the grades nine through twelve inclusive. Nacogdoches is the only school in the district with its Junior High School on another campus.



## DEFINITION OF TERMS

AAA CLASSIFICATION. AAA classification means any school having an enrollment of 250 to 325 students in the upper four grades.

Athlete. For the purpose of this study the word "athlete" refers to the boy who has participated in either football, basketball, baseball, tennis, or track during his high school tenure.

Non-athlete. Non-athlete refers to the boy who did not participate in one of the five sports at any time during his high school days.

High School In many cases high school includes the last four grades, but in this study it includes only the sophomore, junior, and senior years.

Grades. Grades are those marks, A, B, C, D, or F, that the student received in his solid courses.

Solid Courses. Solid courses mean those subjects that give full credit per year, or, one-half credit per semester. This includes, English, social studies, mathematics, science, and vocational subjects. It does not include co-curricular subjects such as band and Physical Education.

Honor Societies. Honor societies include those organizations or clubs that are a part of the curriculum and receive as members only those students who have high grades and good character.

Other Activities. Other activities refers to those activities that require time other than school time and are not of athletic nature.



Intelligence Quotient. Intelligence quotient is derived by dividing the student's mental age, as determined by a standardized test, by his chronological age and then multiplying the quotient by 100. In this study, intelligence quotient refers to the score made on a standardized intelligence test.

Grade Index. Grade index is the average grade received by a student through high school stated in terms of index numbers.

Average. The average in this study was obtained when all of the grades scores had been added together and divided by the total number of athletes, or non-athletes included in this study. The Average constitutes the basis for which the conclusions of this study were drawn.



## CHAPTER II

### RELATED LITERATURE

Somers<sup>1</sup> made the latest available study on the comparison of the grades of athletes and non-athletes. The purpose of the study was to compare the academic grades of participants in intramural class team competition at Smith College with those of non-participants. In order to secure a comparison between the two groups of students as it exist from year to year in normal college situation, it was decided to follow the four-year careers of members of a specific class. The class of 1948 was selected.

She concluded that: Participation in class team competition does not appreciably affect, either adversely or favorably, the academic grades of student participants: during any single year; nor during the cumulative four year period. Students in the upper 9 per cent of the class who participated in class team competition were slightly superior in academic average than non-participants. Students in the lower per cent of the class who participated in class team competition obtained an academic average equal to that of non-participants. The intramural participants, in both the upper and lower 9 per cent of the class is more active in additional extracurricular activities than the non-participant. The participants in the intramural sports seem to have a slight edge in their academic achievement.

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<sup>1</sup>Madeline Somers, "A Comparative Study of Participation in Extracurricular Sports and Academic Grades," Research Quarterly, XXX (March, 1951), 84-90.



Ray<sup>1</sup> made a study of inter-relationship of physical and mental abilities and achievement. He found that within the limit of an I. Q. group, this study finds physical ability a more reliable predictor of academic standing than is relative I. Q. At the low I. Q. level, some unmeasured quality seems to influence achievement of all sorts in the individual who persist in school attendance.

There are teachers who believe that athletic participation is harmful to scholastic success of students, as shown in a study made by Powers in twenty California high schools. As reported by Jacobsen<sup>2</sup>, the instructors in these schools were polled. The results showed that from 60 to 95 per cent believe athletics detrimental to intellectual efforts, scholarship, memory, concentration, reasoning, and will power.

As has been stated, some teachers believe participation in athletics is unfavorable to scholastic attainment. But, to the contrary, Washke's<sup>3</sup> study of scholastic attainment in intramural sports to determine what effect, if any, intramural sports participation had on the scholastic attainment of certain men students at the University of Oregon. He concluded that:

<sup>1</sup>Harold C. Ray, "A Study of Inter-relationship of Physical and Mental abilities and Achievements of High School Boys in Palo Alto Public Schools," Research Quarterly, IX (March, 1930), 121-140.

<sup>2</sup>John M. Jacobsen, "Athletics and Scholarship in the High School," School Review, XXXI (April, 1931), 280-282.

<sup>3</sup>Paul R. Washke, "A Study of Intramural Sports Participation and Scholastic Attainment," Research Quarterly, XI (May, 1940), 22-27.



The figures show that the intramural program, as it is functioning at the University of Oregon at least, has no deliterious effect on the participant's scholastic attainment.

.....  
 Further study on this problem will undoubtedly be valuable to the research worker in this field, which there have been few to date.

A more complete study was made by Purdy<sup>1</sup> of Franklin High School, Franklin, N. J. The study was made over a ten year period between 1939 and 1948. Purdy found that baseball players had the highest scholastic record of all the athletic groups, and that a higher percentage of athletes go to college than non-athletes.

Purdy drew four conclusions from his study of this high school, and they are as follows:

The fact that the grades of the athletes averaged 1.8 percentage points above the non-athletes indicated that participation in athletics is no drawback scholastically, and that sports may actually serve as a stimulant to many who otherwise would neglect their studies. The scholastic eligibility requirement alone constitutes a sharp-edge spur for the athletes. The boy who participates in all four sports is more likely to be a better student than the boy who only participates in one or two. This shows that additional time spent in athletic activity is not a drawback to scholastic achievement. The athlete is more likely to enter college than the non-athlete. Since practically all investigations to the effect of interscholastic athletics on scholarship have shown

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<sup>1</sup>Reg Purdy, "Athletes vs. Scholars," Scholastic Coach, XIX (October, 1949), 54-56.



gible results, it would seem to follow that the non-athletes are the losers in experience.

Cook and Thompson<sup>1</sup> made a study of the letter boys and non-letter boys in the Hughes High School, Cincinnati, who were in the class of 1922 to 1926, inclusive. The general purpose of the study was to ascertain some facts concerning the scholarship and the educational progress of high school athletes.

There was a total of exactly 100 boys who won letters in one or more of the following sports, football, baseball, track, swimming, and tennis. Ninety-one of the boys graduated in 1926, or earlier; the other 9 failed to graduate.

For comparison with the letter boys who graduated, 20 non-letter boys were selected in alphabetical order from each class for the five years indicated. A special group for comparison with the 9 letter boys who did not graduate was secured by pairing each of these boys with a non-letter boy who entered at the same time and remained the same number of semesters.

When a subject was repeated because of failure, the mark received the first time the subject was taken was the only one recorded. It was found that the athletes had both the highest and the lowest grades, but the non-athletes had a slightly higher average than the athletes. The average of the boys in the lettergroup ranged from a 94.0 to 68.4; those of the non-letter boys varied from 91.5 to 70.9.

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<sup>1</sup>William A. Cook and Mable Thompson, "A Comparison of Letter Boys and Non-letter Boys in a City High School," School Review, LXXXV (May, 1928), 370-358



Whereas in 1932-33, Eaton and Shannon<sup>1</sup> made a study of the athletes and non-athletes entering Indiana State Teachers' College of that year. On the day of enrollment in the college each male student was asked to add to the information called for on the registration form filed with the dean of men the answer to the question, "Did you earn a letter in athletics while you were in high school?" From these forms were compiled two lists of names, one of 291 lettermen, and the other of 388 non-lettermen, a total of 679 students.

The purpose of the study was two fold: (1) to compare the high school lettermen with respect to scholastic achievement, and (2) to find the comparative number of high school letter men and non-lettermen who entered college and who also graduated from college.

Of the high school graduates who entered Indiana State Teacher's College and were included in this study, those who had earned letters in high school athletics were somewhat lower in intelligence than the men who had not. The high school athletes were also slightly less successful in college scholarship than the non-athletes. However, their scholarship was higher in proportion to their intelligence than of non-athletes. The coefficients of correlation between intelligence and college scholarship for both groups of men were similar to those found elsewhere in the United States. The proportion of high school athletes entering college was uniformly higher than that of non-athletes in the same high school graduating classes. This fact may account for the finding that

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<sup>1</sup>Dorothy Eaton and J. R. Shannon, "College Careers of High School Athletes and Non-athletes," School Review, XLIII (May, 1934), 356-361.



the group of athletes entering college was somewhat below the other group in average intelligence. The proportion of high school athletes graduating from college was also greater than the similar proportion on non-athletes in the same high school graduating classes both in the case of the two groups that graduated from high school and also in the case of the two groups that entered college.

In the final summary the authors were of the opinion that the active or passive influences exerted by colleges to draw athletes might explain why a larger percentage of high school athletes than non-athletes entered college. To counteract this, the idea was also expressed that colleges actively seek exceptional scholars by means of scholarships, and this factor may also have had its influence.

But findings by Hakensmith<sup>1</sup> does not support those views.

Hakensmith made a comparison of academic and intelligence scores of 322 students at the University of Kentucky. The purpose of the study was to study the relationship of intramural participation to the academic grades of the university students. The result of the study suggest that: the freshman participation in intramural athletics does not have a marked effect upon the student's academic grade. Participants in intramural athletics as a whole have a higher mean intelligence rating than those who do not participate. Sophomore participants show slightly higher mean academic grade, and that junior and senior intramural par-

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<sup>1</sup>C. W. Hakensmith, "A Comparison of Academic and Intelligence Scores of Intramural Participants of the University of Kentucky," Research Quarterly, VIII (March, 1938), 94-97.



ticipants demonstrate a definite higher mean academic grade than do non-participants of the same classes.

Finch's<sup>1</sup> investigation in 1941, in which he attempted to reveal any relationship existing between interscholastic participation and scholastic achievement. Among boys graduating from University High School, University, Minnesota, 174 boys were used in the study.

Five sports were included, football, basketball, baseball, track, and swimming. Five standardized test were used to compute intelligence quotients. These intelligence quotients along with the quarter grades of the students formed the basis of the study.

The following conclusions were drawn after careful computation and study was given to the problem.

There is a slight tendency for boys of high intelligence to engage less in interschool athletics. Boys who play on teams engaging in interschool athletics contest receive grades approximately equal to those received by boys of equal mental ability who are not members of such teams. Boys engaging in more than one sport receive marks approximately the same as those of non-athletes of equal mental ability.

Finally, there is no evidence that boys engaging in any particular sport differ markedly in achievement from boys engaging in any other sport.

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<sup>1</sup>F. H. Finch, "Athletics and Achievement in High School," School and Society, XXV (February 27, 1942), 299-300.



A study made by Jones<sup>1</sup> with reference to the intelligence of high school athletes and non-athletes. He pointed out that for years the relationship between brain and brawn has led many interesting discussions in respect to the idea that some people consider athletics an activity in which physical strength is the only requirement; while others contend that intelligence is also necessary. Jones drew the following conclusions: High school athletes are more intelligent than non-athletes. There is a smaller percentage of athletes than non-athletes in the lower intelligence level. A larger per cent of the athletes than of the non-athletes is in normal and superior groups of intelligence. In the very superior and near genius groups the percentage of athletes and non-athletes is approximately the same.

A further study was made by Seeger and Postpichal<sup>2</sup> on intelligence and certain physical abilities. The purpose of the study was to determine if Philadelphia teachers of physical education found lower levels of achievement in physical activities in the school organized primarily to care for children of low mentality.

The subjects of the study were 656 boys in two special schools in the city of Philadelphia. A mental score for each boy under consideration was obtained from the offices of Philadelphia schools. Each boy

<sup>1</sup>L. S. Jones, "A Comparison of the Intelligence of Athletes with Non-athletes," School and Society, XLII (September 21, 1935), 416-419

<sup>2</sup>J. C. Seeger and Otto Postpichal, "Relation Between Intelligence and Certain Aspects of Physical Abilities," Journal of Educational Research, XXX (October, 1936), 104-106.



was given athletic test in the following events: Overhead ball throw; fifty yard dash; standing hop; step and jump; and chinning. The results were recorded.

The results showed the correlations between I. Q. and scores in athletic events were positive, but too low to be of much forecasting usefulness. The I. Q. score correlations were high for the more complicated events. The facts indicated a definite correlation between desirable attributes of intelligence and measured other factors in this study, and the athletic ability tested in the five events. Brighter boys tend to achieve better scores. However, the individual variation is so great, and the forecasting ability is so small that these tendencies should not be given an individual application.

These studies shows that there is no significant difference between the athletes and non-athletes in the areas considered in these studies.

The grades were from solid letters that after school credit was given for work. English, social studies, vocational subjects, mathematics, foreign language, and science all fell into this category. Grades for band, even though it offers full credit in some cases, are not considered because in some of the schools students are not permitted to take band and vice-versa. The subject areas considered are those in which both athletes and non-athletes have an equal opportunity to participate. This is why some sports are not taken into consideration.



### CHAPTER III

#### ANALYSIS OF DATA

The grades of the athletes and non-athletes are of primary importance in this study. Instead of using number averages beginning at "0" and extending through "100", or letter averages such as "A", "B" or "C", this study uses index averages that can be translated from either the letter system or the number system. Since one school uses one type of marking system, and another school uses another type, the index averages are used in this study are more suitable for the comparisons of the two groups. It may well be repeated that an "A" or number equivalent to an "A" is assigned the index number 5; a "B" or equivalent number is assigned and index number 4; A "C" or equivalent number is assigned an index number of 3; a "D" or equivalent number is assigned an index number of 2; and a "F" or equivalent number is assigned an index number of 1. The number obtained by taking the arithmetical average of the index number which were computed from the student's grades, represents the student's total index number. This index is computed correct to the nearest thousandth of a point.

The grades come from solid courses that offer one-half credit for a semester's work. English, social studies, vocational subjects, mathematics, foreign language, and science all fall into this category. Grades for band, even though it offers full credit in some cases, are not considered because in some of the schools athletes are not permitted to take band and vice-versa. The subject areas considered are those in which both athletes and non-athletes have an equal opportunity to participate. Plus or minus marks are not taken into consideration.



The index number of each group is the average derived from the total number of students in each group. It is easy to see that if the grades for each school were averaged and then the grades from all of the schools were averaged again, it would not give the desired index average, because each school average had been computed to the nearest thousandth of a point previously. The fact that each school does not have the same number of students would also make an average computed by schools inadequate for this study.

This study is designed to give correct to the thousandth of a point, computed by arithemathical computation, the average which seem to give the true image of the average grades of all of the schools included in this study. Since this study is primarily interested in the average grades for the athletes and the average grades for the non-athletes of all of the schools, rather than for each school, it again seem impractical to emphasize the average for the individual schools. The average for each school was computed, this was done only for the purpose of finding the general average for all of the schools and was given no consideration in this study.

Tables are provided to show all of the comparisons of the athletes, and of the non-athletes included in this study. Each table is explained, and the final average for the athletes and for the non-athletes are pointed out.

All other arears considered in this study are treated in a like manner.



Table I gives the index averages of grades for both athletes and the averages for the non-athletes according to schools.

TABLE I  
COMPARISON OF ALL HIGH SCHOOL GRADES MADE BY  
ATHLETES AND NON-ATHLETES IN DISTRICT 3 AAA

School	Number of Athletes	Average of Athletes	Number of Non-athletes	Average of Non-athletes
Carthage	12	3.942	1	4.367
Gladewater	20	3.675	21	3.216
Henderson	11	3.976	1	3.440
Jacksonville	7	3.846	1	3.875
Kilgore	24	3.582	30	3.875
Lufkin	19	3.462	5	3.043
Nacogdoches	43	3.623	44	3.594
Pittsburg	<u>11</u>	2.804	<u>4</u>	3.774
	147		107	

It was found from Table I that the average for athletes is 3.695, and that the average for non-athletes is 3.476. It can be noted the total number of each group, and the total index average for the athletes and the total average for the non-athletes.

The athletes have a higher average than the non-athletes in Gladewater, Henderson, Kilgore, Nacogdoches, and Lufkin, while the non-athletes lead in the other three schools, those being Pittsburg, Carthage, and Jacksonville. The athletes (Table I) from Henderson registered the



highest grades of any group with an index average of 3.976. If this grade was transferred back to a regular number or letter grade, it would probably amount to about an 85, or "B".

In the elective subjects, a careful check was made to determine if there was any difference in the type of subjects preferred by each of the groups. With the exception of band, there was no evidence preference. Vocational subjects, music and art were about evenly distributed among the athletes and non-athletes.

The average grade for each of the 147 athletes was taken and then averaged as a group to find the index average. The average grade for all athletes of the 1961-62 senior class of District 3 AAA was 3.605. This average is .129 of an index point higher than the average for the non-athletes. The 107 non-athletes included in this study represents 42.5 per cent of the total number of senior boys who graduated from District 3 AAA high schools in 1962.

The highest non-athlete average was made at Carthage, but, since; this included only one boy, the average is not of particular value. The 40 non-athletes from Nacogdoches probably presents the most acceptable grades with an average of 3.594. As has already been mentioned the five non-athletes from pittsburg, and one non-athlete from Carthage, and the one non-athlete from Jacksonville are the only three groups that led the athletes in index average.

The above mentioned information indicates that there is very little difference between the actual grades made by athletes and non-athletes who are included in this study, and that the little difference



that does exist is in favor of the athletes.

Grades received in English were the only grades that were compared in an individual subject matter area. With such a wide range of electives it seem impractical to try to compare grades in other subjects. Since English is required throughout high school, it makes an ideal subject for comparison.

The index average for the 147 athletes is .161 of an index point higher than that of the 107 non-athletes as will be seen in Table II.

TABLE II

COMPARISON OF HIGH SCHOOL ENGLISH GRADES MADE  
BY ATHLETES WITH THOSE MADE BY NON-ATHLETES  
OF DISTRICT 3 AAA SCHOOL GRADUATES OF 1962

School	Number of Athletes	Average of Athletes	Number of Non-athletes	Average of Non-athletes
Carthage	12	3.792	1	4.000
Gladewater	20	3.633	21	2.960
Henderson	11	3.985	1	3.333
Jacksonville	7	3.476	1	3.167
Kilgore	24	3.215	30	2.233
Lufkin	19	3.088	5	2.667
Nacogdoches	43	3.519	44	3.467
Pittsburg	11	2.576	4	3.125
	<u>147</u>		<u>107</u>	

Table II shows that the eleven athletes from Henderson have the highest index average for athletes with an average of 3.985. The one



non-athlete from Carthage posted a 4.000 average, but of course this average represents only one person, and therefore does not reflect the average of all of the non-athletes. The 44 non-athletes from Nacogdoches were next with an average of 3.467.

The index average for the athletes is 3.413 (Table II), page 20 gives this information. If this average was evaluated back to a letter grade it would be about a "C". The index average for the non-athletes is 3.252, (Table II), page 20, gives this information. If this average was evaluated back to a letter grade it would also be equivalent to a "C".

For many years various means of testing ones mental ability have been devised. The most common type of testing is the group intelligence test which is designed to be used to check at intervals throughout the student's school career. The score used in each case in this study is from the latest test that was given to the student during his high school career. In any one school the test may have been made when the students were sophomores, or possibly while they were seniors.

In order for the conclusions to have real statistical value, it would probably be necessary for the same type test to be given to all students at the same time. Since this is not possible, the intelligence quotients as they were found, are presented in this study. Due to the fact that some students were absent on the days that the tests were given, and due to new students moving in, the average does not represent the total number of students involved in the study. Pittsburg had no records whatsoever, but the other seven schools had records on



most of their students. The schools recorded intelligence quotients for 132 of the athletes and 97 of the non-athletes. The writer is mindful of the athletes and the non-athletes that are not include.

Table III presents the intelligence quotients as they were found in the different schools. The average is computed correct to the nearest whole number, and that average is found in the table.

TABLE III

COMPARISON OF INTELLIGENCE QUOTIENTS MADE BY ATHLETES  
AND NON-ATHLETES OF DISTRICT 3 AAA

School	Number of Athletes	Average I. Q. of Athletes	Number of Non-athletes	Average I. Q. of Non*athletes
Carthage	10	101	1	123
Gladewater	19	108	21	104
Henderson	11	102	1	94
Jacksonville	7	95	1	100
Kilgore	23	101	24	104
Lufkin	19	105	5	104
Nacogdoches	43	111	44	111
Pittsburg	No records available			
	132		97	

It can be determined from the scores in Table III that the average intelligence quotient for athletes is 106. It may also be determined from the data in Table III that the average for the non-athletes is 107.



The athletes lead, as far as averages are concerned, in four of the schools, and had the same average as non-athletes in another one of the schools. The highest average for athletes was that of Nacogdoches students who had a mean I. Q. of 111. The average for all of the athletes is 106.

The average for the intelligence scores of the 97 non-athletes is 107. This is a difference of 1 point in favor of the non-athletes. This small difference does not justify any conclusions since the intelligence test themselves are not considered to be 100 per cent correct. This indicates that the athletes of District 3 AAA made better marks in relation to their intelligence quotients in the 1961-62 school year, but the difference is not statistically significant.

Securing good attendance is a problem that has plagued some people since the beginning of modern schools. Some pupils are absent through necessity, while others are absent simply because they want to be absent. Work is the excuse most offered for absences among both the athletes, and the non-athletes. Days, or periods out of the class room due to school trips such as Interscholastic League Sports, band trips, agriculture trips, Hi Y organization trips, Home Economic trips, and student council trips are not counted as absences against the student since they were school sponsored affairs. This part of the report does not take into consideration, whether the absences were excused, or unexcused.

The absentee records of the 147 athletes and the 107 non-athletes were taken directly from the permanent attendance records of each school, and represents the absences for the 1961-62 school year only.



Table IV compares the absentees of the athletes with those of the non-athletes.

TABLE V

COMPARISON OF THE ABSENCES OF ATHLETES WITH THOSE OF  
NON-ATHLETES DURING THE 1961-62 SCHOOL YEAR

School	Average number of times each athlete was absent	Average number of times each non-athlete was absent
Carthage	12	14
Gladewater	6	10
Henderson	5	38
Jacksonville	11	14
Kilgore	6	4
Lufkin	9	8
Nacogdoches	12	9
Pittsburg	8	4

Table IV reveals that the athletes were absent on an average of 9 times, and that the non-athletes were absent on an average of 8 times.

The athletes were absent about 5.8 per cent of the time and present about 94.2 per cent of the time during the 1961-62 school year. The schools themselves show very little difference in the average of the athletes and the non-athletes.

The non-athletes were absent about 5.1 per cent of the time, and, (Table IV), present about 94.9 per cent of the time. Again, the



margin is very close which indicates that little can be assumed in the way of comparison. Seven-tenths of one per cent is the total difference, so it can hardly be said that one group is far better than the other in attendance.

The data indicates that the location of the school has very little to do with the number of times a student was absent, and the data also indicates that it makes very little difference whether the student is an athlete or a non-athlete.

Academic honors are awarded to those who achieve certain high standards. Usually the rewards consist of medals, or citations but occasionally, scholarship to Colleges, or Universities are given as inducements to the achievement of academic success.

The National Honor Society is one of those organizations which recognizes each year the seniors who have maintained high standards in leadership, citizenship, scholarship, and service. The student not only has to make high marks, but must possess other admirable characteristics as well, in order to be a member of the National Honor Society. The teachers evaluate these other characteristics plus academic averages of the student and the result determine whether the student is eligible for admission to the society.

Not all of the schools in District 3 AAA participate in the selection of students for membership in the National Honor Society, but each school has some type of local society that recognizes those students of outstanding ability and achievement. The student council, which is found in several of the schools, and the Hall of Fame at



Ludkin are two examples of local societies found in District 3 AAA schools.

At the end of each school year there is still another honor which is bestowed upon two members of the graduating class. The Valedictorian, the student having the highest average through out high school, and the salutatorian, the student having the second highest average, are indeed honors. The students who achieve either of these honors had to do so in competition with girls as well as the other boys.

The writer recognizes the fact that there are numerous other societies, and organizations that has some type of screening process for the selection of its members. Summer training institutes, fellowship grants, and others. Only those honor societies mentioned above are the ones considered in this study. It is the usual custom to think of the girls receiving most of the honors from the societies. Girls are not included in this study, but a careful survey of the records was made, and the greater number of honors were won by the female students.

In spite of the fact that most girls do not utilize as much time in athletic competition as do the athletes, did not conform to the idea of girls receiving all of the honors.

No logical explanation can be given for the lack of honors received by the non-athletes. Again this bears out the literature in that athletes seem to share in more of the honors than do the non-athletes.



Table V lists the types of honor society and the number of athletes and non-athletes in each society from each school.

TABLE V

A COMPARISON OF THE SPECIAL ACADEMIC HONORS  
OF ATHLETES AND NON-ATHLETES

School	National Honor Society		Local Honor Society		Valedictorian or Salutatorian	
	(A)*	(N-A)*	(A)*	(N-A)*	(A)*	(N-A)*
Carthage	0	0	4	0	1	0
Gladewater	9	4	1	1	0	0
Henderson	0	0	1	0	2	0
Jacksonville	0	0	1	0	0	0
Kilgore	5	1	0	0	1	0
Lufkin	0	0	3	0	1	0
Nacogdoches	0	2	11	3	0	0
Pittsburg	<u>0</u>	<u>1</u>	<u>1</u>	<u>3</u>	<u>0</u>	<u>0</u>
	14	8	22	7	4	0

From the information in Table V, it can be seen that Gladewater's athletes headed the list of the National Honor Society with 9. Nacogdoches' athletes headed the list in the local Honor Society with 11. Henderson's athletes accounted for both the Valedictorian and the Salutatorian of that school. The non-athletes did not lead in any society.

\* The letters (A)\* and (N-A)\*, represents th athletes and non-athletes respectively.



The athletes of District 3 AAA had a total of 14 students in the National Honor Society, 22, in local societies, and 4 of the athletes were either Valedictorian, or Salutatorian. The total number of athletes represented in all of the honor societies is 40. This means that 27 per cent of the athletes in the 1961-62 graduating class were members of some type of honor society.

Out of the group of non-athletes, 8 were members of a National Honor Society, 7 were members of local societies, and non of the non-athletes had an average high enough to be Valedictorian, or Salutatorian at his respective school. The 15 non-athletes represents the students from that group who were members of an honor society. These 15 students represents 14 per cent of the total number of non-athletes.

The so-called extracurricular activities of school plays an important part in the school's program. The term extracurricular in this study means any school sponsored event that requires extra time on the part of the student. Band, Plays, annual staff, school paper, and choral music are the specific activities chosen for this study. The activities were not chosen on the basis of importance to the school program, but on the basis of the use of extra-class time. Of course there are many other activities that take a student's time, but they are usually of shorter duration than the ones mentioned above.

Selection of school favorites is another activity in which the popularity and personality of individuals is concerned. School favorites are selected by the stu



must have faculty approval. The school favorites considered in this study include only those students elected by the entire student body. Class favorites are not included.

Table VI presents the number of students of each of the two groups considered who participated in the activities in each school.

TABLE VI

COMPARISON OF THE GROUPS IN EXTRA-CURRICULAR PARTICIPATION  
OTHER THAN SPORTS AND IN CHOICE OF SCHOOL FAVORITES

School	Plays		Band		School paper		Choral		Favorites	
	(A)	(N-A)	(A)	(N-A)	(A)	(N-A)	(A)	(N-A)	(A)	(N-A)
Carthage	5	0	2	1	2	0	0	0	3	0
Gladewater	0	1	0	3	1	0	2	2	5	0
Henderson	7	0	0	0	2	0	No Record			
Kilgore	1	1	0	3	1	1	1	0	3	0
Lufkin	5	2	4	3	4	1	2	1	2	1
Jacksonville	0	0	3	0	0	0	0	0	0	0
Nacogdoches	4	1	0	9	2	2	1	3	4	2
Pittsburg	0	0	0	3	0	0	0	0	0	0
	<u>22</u>	<u>5</u>	<u>9</u>	<u>22</u>	<u>12</u>	<u>4</u>	<u>6</u>	<u>6</u>	<u>17</u>	<u>3</u>

Table VI shows a comparison of the athletes and the non-athletes in extracurricular participation other than sports and in the choice of school favorites. Including both athletes and non-athletes, twenty-seven students participated in plays, 31 participated in band, and 21 were members of the annual staff, 12 were members of the choral group, and 20 were elected school favorites.



The athletes as a group had 22 participants in plays, 9 band participants, 12 annual staff and school paper participants, 6 members in the choral group, and 17 school favorites. This is a total of 49 athletes in activities that require time outside of school hours.

The group of non-athletes had 5 participants in plays, 21 participants in band, 6 annual staff and school paper members, 6 choral participants, and 3 school favorites. In some schools athletes were not allowed to participate in band, so this may account in part for the non-athletes having the larger group in this area.

Comparisons of the athletes and non-athletes shows that about 15 per cent of the athletes, and about 5 per cent of the non-athletes participated in plays. This is a difference of 10 per cent in favor of the athletes. Six per cent of the athletes and 15 per cent of the non-athletes participated in band. This is a difference of 9 per cent in favor of the non-athletes. Eight per cent of the athletes and about 5 per cent of the non-athletes participated on the school paper, or annual staff. This is a difference of three per cent in favor of the athletes. Four per cent of the athletes and 5 per cent of the non-athletes participated in choral. The athletes had 11 per cent of their total number elected as school favorites, while the non-athletes had only 3 per cent.

The above information indicated athletes, even though they spend time in athletics, they also spend more time in other activities than do the non-athletes. It is also noticed that the athletes rate higher in popularity than do the members of the non-athletes' group.



There were 60 senior boys who participated in football in District 3 AAA during the years of 1959-1961 inclusive. This total also represents the largest number of participants in any one sport. Since eleven players are required to constitute a football team, this indicates that there is a large number of participants who are below the senior class.

Table VII column 1, gives the football average for each school, and the average for all schools is found in Table VIII.

TABLE VII

A COMPARISON OF THE AVERAGES OF EACH SCHOOL ACCORDING TO THE SPORT.

School	Football	Basketball	Baseball	Track	Tennis
Carthage	3.435	4.000	3.386	3.122	3.602
Gladewater	3.302	3.876	4.297	4.045	3.811
Henderson	4.177	3.926	3.842	3.286	No Participants
Jacksonville	3.443	3.845	4.064	3.442	3.636
Kilgore	3.847	3.096	3.307	3.150	3.728
Lufkin	4.062	3.263	3.684	3.108	3.981
Nacogdoches	3.222	2.989	3.496	3.618	4.252
Pittsburg	3.306	3.444	3.132	3.501	No Participants

It can be noted from Table VII, the senior boys who participated in football from Henderson had the highest index average in all grades with 4.117. The football participants from Lufkin were second highest with an average of 4.062.



The study reveals that the grades made by football players have no apparent difference from those made by players of any of the other sports. The fact that the football season is longer than the season for any of the other sports, and requires more time outside of the class room, had no decided effect on the participants.

There were 25 senior boys in the graduating class of 1962, who participated in basketball during the three seasons of their high school career. This number represents 17.009 per cent of all of the senior athletes in this study.

The fact that only 5 players are required to constitute a team offers no logical explanation for the small participation. The fact that some of the latest trends in coaching this sport is to use as many underclassmen, as is feasibly possible, probably accounts to a large extent for the small participation in this sport by senior boys.

Since this is the only indoor sport in this study, and it is played during the winter months of the school term, the small per cent of 17.009 is astonishing for the basketball participation.

The basketball participants from Carthage had the highest average with 4.000. This average has very little significance, since there was only one senior participant in basketball from that school.

Henderson was second highest in average, with an average of 3.926. This, too; does not indicate any significant difference in average since there was only one basketball participant from that school.

Table VII, column 2, page 31, gives the basketball averages for each school. The averages of 3.556 for all of the schools is found



in Table VIII.

TABLE VIII

## A COMPARISON OF THE AVERAGES

## ACCORDING TO SPORT

Name of Sport	Average of Sport
Football	3.609
Basketball	3.556
Baseball	3.676
Track	3.490
Tennis	3.835

The basketball average, as in the averages previously discussed, show no appreciable difference from those of any other sport.

There were 59 senior boys who participated in baseball in District 3 AAA during the 1959-1961 school years inclusive. This total represents the second largest number of participants in any one sport. Since it takes 9 players to constitute a baseball team, this indicated that juniors, and sophomores are used in many instances in order to field a team. Baseball season arrives near the end of the school year, which may account for the lack of participation by senior boys.

The senior boys who participated in baseball from Gladewater had the highest index average in all grades with 4.297. The Jacksonville students were second highest with an average of 4.064.



Table VII, column 3, page 31, gives the baseball averages for District 3 AAA schools, and the averages for all of the school or 3.676, for the same sport is found in Table VIII on page 33.

The track participants had the lowest grades with an average for all of the schools of 3.490. There were 50 seniors who competed in track, which means about 34 per cent of the athletes were out for track. The track participants from Gladewater had the highest grades with an average of 4.045. The above mentioned tables on pages 31 and 33, supplies the averages for the grades of the track participants.

Only 6 schools in District 3 AAA entered players in tennis in the Interscholastic League competition. Those were; Gladewater, Kilgore, Nacogdoches, Carthage, Jacksonville, and Lufkin. Lufkin had three boys who advanced to the finals in the 1962 State Tennis Tournament at Prairie View A. and M. College. The tennis players from Nacogdoches had the highest average of the 6 schools represented with an average of 4.252. The average of 3.835 for all of the schools made by tennis players was the highest average made in any of the sports. There were only 16, or approximately 10 per cent of the athletes, who participated in tennis. This small number is probably due to the fact that it takes only 1 or 2 players to constitute a team.

Tables VII and VIII, on pages 31, and 33 respectively, also; have the same type of information regarding tennis players as is shown for the participants in the other sports.

The stimulus for this part of the study came from the discussion of whether it is best for a boy to participate in more than one sport.



Some contends that a boy who participates in sports all year, will neglect his studies to such an extent that his grades will be lowered. The data as found in this study indicates that the boys, in District 3 AAA, who participated in only one sport made the lowest grades out of the group of athletes.

Among the 8 schools of this study, the boys from Henderson who participated in only one sport had the best grades with an average of 3.538.

Table IX lists the averages by schools.

TABLE IX  
GRADES AVERAGES OF PARTICIPANTS IN ONE,  
TWO, THREE, OR FOUR SPORTS

School	Participants in one Sport	Participants in two Sports	participants in three Sports	Participants four sports
Carthage	3.814	3.998	4.356	3.788
Gladewater	3.151	4.122	4.458	4.557
Henderson	4.050	3.983	3.768	4.577
Jacksonville	3.038	3.432	4.479	3.847
Kilgore	3.539	3.656	3.762	None
Lufkin	3.332	3.624	3.538	3.347
Nacogdoches	3.647	3.643	3.183	None
Pittsburg	3.079	2.933	2.695	2.227

There were 45 boys who participated in 2 of the 5 sports. These athletes had the highest grades with an index average of 3.679.

Among the schools included in this study, the boys who participated in 2 sports from Gladewater, had the highest grades with an average of 4.122. The two sport participants from Carthage were second,



with an average of 3.998.

There were 22 senior boys out of the 147 athletes, who participated in 3 of the four sports, and their average was 3.562, which ranks third. This is only 0.117 of an index point behind the first ranking participators.

The three sport participators from Jacksonville made the highest grades with an average of 4.479.

Table X gives the number of athletes and the number of sports in which they participated.

TABLE X  
AVERAGES FOR PARTICIPANTS IN ONE,  
TWO, THREE, OR FOUR SPORTS

Number of Sports	Number of Participants	Average
One Sport	60	3.538
Two Sports	45	3.679
Three Sports	22	3.562
Four Sports	15	3.645

Tables IX, and X above gives the information concerning the boys who participated in 3 sports.

The 15 boys who participated in 4 sports ranked second in academic standing with an average of 3.645. Roughly, this represents approximately 10 per cent of the total number of participants. The



participants from Gladewater had an average of 4.557, this is the highest average among the school in this study.

The data collected in this study seem to indicate that it makes very little difference as to how many sports an individual participates.



## CHAPTER IV

### SUMMARY AND CONCLUSIONS

The summary of the previous chapters and the conclusions that may be drawn from the information received is the primary concern of this chapter.

It is recognized that the findings of this study will not hold true in every community for several reasons. First, changes come with time and it is not probable that findings revealed in this study will be true ten, five, or even one year from now. Second, it is not probable that the teachers in the different schools teach or record grades alike. There is always the chance that a teacher may favor or disfavor the athlete, or non-athlete when the grades are recorded. A certain amount of umbrage, and the human element is always present, which usually causes a lack of objectivity in the averages. Third, the economic status of the oil field schools and the oil field people is somewhat different from other communities. This may cause the findings to vary from what might be found elsewhere. Fourth, the curriculum offered varies from school to school. Where the larger city school may stress college preparatory subjects, the small town school may stress vocational subjects. While in many cases the opposite may be true. Naturally the type of subject, and the interest created in class has much to do with the grades that a student achieves. These things vary somewhat from one school to another, and as enrollment increases the ratio of athletes to non-athletes may change.



Some of the findings of this study which looms as important are:

1. Very little data are available in this area of study, that was obtained about 25 years ago. The most recent available information preceding this report was computed in New Jersey, in 1949.
2. The number of senior athletes in District 3 AAA high schools in 1962 exceeded the number of non-athletes by 40. The total number of athletes was 147, and the total number of non-athletes was 107, showing that in this district, competitive sports afford opportunities to a large percentage of the students.
3. The social and economic background of the students in the oil field schools is of a wide and varied range.
4. Some of the schools of District 3 AAA receives money from the school tax levied on real estate with valuations made high by the presence of oil and are thus able to spend more money on co-curricular activities including athletics than would otherwise be the case.
5. In District 3 AAA schools, the average of the grades for the 1962 senior athletes are slightly above the grades for the 1962 senior non-athletes. The athletes had an average of 3.605, and the non-athletes had an average of 3.476. Statistically speaking, the difference is not significant.
6. In the only single subject comparison of the study which was English, the athletes made slightly better grades than did



non-athletes. The athletes' index average for English was 3.413, and the average for the non-athletes was 3.252. Statistically, the difference is the same as in the previous area.

7. Records were available for 132 of the athletes in the area of intelligence quotients, and records were available for 97 of the non-athletes. The average intelligence quotient of lot which the non-athletes had is slightly higher than the average of 106 which the athletes had.

8. The senior athletes of District 3 AAA were absent from school an average of 9 times during the 1961-62 school year, and the non-athletes were absent an average of 8 times. On an average each athlete was absent one more day than each non-athlete.

9. Not only did the athletes make better grades, but also they had a larger percentage of students who were elected to honor societies, both on the national, and the local level. Tables I and II bears out the statement made above.

10. Out of all the seniors of district 3 AAA, including the girls, the athletes had one valedictorian and three salutatorians, while the non-athletes did not earn any of these honors.

11. The athletes had a larger percentage of students who engaged in activities other than sports, such as plays, annual staff, and the school paper, than did the non-athletes.

12. The athletes had a larger percentage of students who were elected school favorites than did the non-athletes. The athletes had 17 student body favorites out of 147 students, and the



non-athletes had 3 favorites out of 107 students.

13. About 50 per cent of the occupations, in which the parents engaged, dealt directly with the oil field, this reveals no noticeable difference in relation to the type of work performed by the parents of athletes and the parents of the non-athletes.

14. The study indicates that the kind of sport in which the athlete participated, had no apparent affect on the grades made by the athletes in the solid courses.

15. The study bears out the literature in that athletes seemingly rank a bit higher than the non-athletes. However, this figure is so small, it has no particular significance.

In view of the findings, the writer suggest the following recommendations:

1. To ascertain what courses, if any, in which the athletes make their lowest grades.
2. To determine what effect, if any, athletics have on the physical and emotional development of participants.
3. To determine the effect participation in one, two, three, or more sports have on individual academic success.
4. Longitudinal studies over the entire high school career of athletes and follow-up after graduation.



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