

The effect of extracurricular activities on academ ic achievement



THE EFFECT OF EXTRACURRICULAR ACTIVITIES ON ACADEMIC ACHIEVEMENT

A Thesis Presented to the School of Education Drake University In Partial

Fulfillment of the Requirements for the Degree Specialist of Education by

James W. O'Dea May 1994 THE EFFECT OF EXTRACURRICULAR ACTIVITIES ON

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Education THE EFFECT OF EXTRA-CURRICULAR ACTIVITIES ON ACADEMIC

ACHIEVEMENT An abstract of a Thesis by James W. O'Dea May 1994 Drake

University Advisor: Michael Johnson The problem. Is there a difference in the

grade point average between students who participate in extracurricular

activities and those who do not participate? Procedure. Four hundred twenty-

four seniors at Valley High School in West Des Moines, Iowa made up the

study group. Each senior completed the Fall Senior Information Sheet which

gathered information about their participation in extracurricular activities.

The grade point averages were obtained from office records. Specific criteria

were developed to establish a group of involved students and a group of

those not involved in extracurricular activities. The difference between

groups was statistically analyzed using a ttest. Findings. The probability of

the t-test was less than 0.000499. A significance level of 0.01 was

established for this study. Conclusions. 'There is a significant difference

between the grade point averages of those involved in extracurricular

activities and those not involved in extracurricular activities. Additional

research is recommended to determine if Recommendations.

extracurricular activities have an effect on such variables as attendance,

discipline, school size, and self-esteem. Do the types of activities have an

effect on GPA? A study of the effects that withdrawal from extracurricular

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activities has on the previously mentioned factors could be interesting.

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Chapter 1 Introduction Extracurricular activities play an important role in today's secondary education programs (Holland & Andre, 1987). When one considers the large number of activities available, one realizes the diversity of the programs. Included are athletics, publications, student government, fine arts, academic clubs, service organizations, and special interest activities. There has been a considerable amount of research devoted to studying the relationship between student involvement in activities and student academic achievement. Although a positive correlation has been shown in many of these studies, there is still a fierce battle among educators concerning the need for extracurricular activities. Two positions appear to be prevalent in today's academic community. These are referred to as either the academic or developmental perspective. The academic perspective considers extracurricular activities as purely leisure and not part of the purpose of schools. The developmental perspective considers extracurricular activities necessary to the total development of the student in today's schools (Holland & Andre, 1987). Educators who believe in the academic

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perspective argue that time spent away from the classroom decreases the student's chances for success. Even those activities that don't require loss of classroom time are perceived to take away study time. These educators support cutting or eliminating activities for budgetary reasons. The state of Iowa, like many states, has faced enormous challenges in the recent legislative sessions to fund education. Special interest groups supporting consolidation, decrease in funding, and sharing of programs add fuel to the academic perspective. School boards and legislatures enacted "no pass - no play" rules throughout the country during the 1980's. These rules were designed to pacify the back-to-basics trends that were and are prevalent in today's education systems. Educators who believe in the developmental perspective see activities as an extension of the educational program. Activities allow students to develop skills such as leadership, sportsmanship, self-discipline, self-confidence, and the activities offer an ability to handle competitive situations. Extracurricular opportunity to interact in ways that allow the previously mentioned skills to blossom. The developmental minded believe that many of these skills would be impossible or very difficult to develop in a classroom setting. Marsh (1992) stated: According to different theoretical perspectives, extracurricular activity participation may be posited to (a) divert attention from academic pursuits, as evidenced by its negative effects on narrowly defined academic goals; (b) have little or no effect on academic outcomes but contribute to desirable nonacademic outcomes; or (c) have positive effects on nonacademic outcomes and facilitate academic growth, perhaps indirectly, as well. (p. 553) Statement of the Problem This research sought to study the relationship between extracurricular activities and student achievement. The study was designed to determine if there was

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a significant difference in grade point average between students involved in extracurricular activities and students not involved in extracurricular activities. Significance of the Study The results of this study add to the body of information regarding the value of extracurricular activities. It provides educators and parents with information to assist their high school students in making more informed choices in their high school programs . Chapter 2 The Educational Resources Information Center (ERIC) was used for the primary search of literature pertaining to the research question. The following descriptors were used for the first search: grade ~ o i naveraae, achievement, t - -, a and extracurricular. This search located 61 references which produced a limited number of primary sources. Another search was conducted using the following key words: extracurricular, learning, achievement, and affect. This search produced another 58 references. A request to the Iowa High School Athletic Association located 4 reports. A dissertation from the Drake library completed the search. The information search was conducted by the Area Education Agency. The information supplied with the ERIC search was used to determine which articles were appropriate for the research question. The information search document has two sections which supplied the necessary material to determine which references would answer the research question. The section called document type was used to eliminate secondary resources. The abstract was utilized to determine if extracurricular activity and its effect on student performance was a main theme of the reference. The chosen references included research reports, conference papers, evaluative reports, reviews of literature, a dissertation, and articles pertaining to extracurricular activities and their influence on student achievement. Criteria for Selection of Articles The <https://assignbuster.com/the-effect-of-extracurricular-activities-on-academic-achievement/>

criteria used for article selection were as follows: 1. The article was classified as a research document and extracurricular activity was the independent variable in the study. 2. The variable grade-point average was involved in the study. 3. Extracurricular activity was compared to other adolescent development. The search and the criteria selection methods produced 41 articles which were used in this study. As the search progressed it became apparent that extracurricular activity, as compared to adolescent development, involved a wide variety of areas. Academic achievement was not always reported as grade point average. To allow for these differences, the following changes were made in the criteria. 1. The article was classified as a research document and extracurricular activity was the independent variable in the study. 2. Academic achievement was compared to extracurricular activity. 3. Articles addressed extracurricular activity and academic achievement. These articles may not correlate the two variables. The second criterion produced 14 articles which compared extracurricular activities to academic success. A set of 6 articles was selected if extracurricular activity and/or academic success was studied in the article even if academic success was not the dependent variable. Results Articles that showed a positive or negative relationship The research question was to determine if there was a relationship between extracurricular activity and academic achievement. As mentioned in the criteria section, there were 14 articles that met this requirement. Seven of those articles reported either a positive or negative relationship between the variables. All 7 articles were research articles. One article used the national ACT to sample 10, 758 students (Dvorak, 1989).

One article sampled 3, 125 college students from the same school

(Henriksen, 1989). One article used the National Longitudinal Transition
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Study with a sampling of 10, 369 students (Newman, 1991). The remaining 4 articles sampled students from school districts in Texas, Mississippi, California, and Wisconsin. These 4 studies used samples of less than 1000 (Brown & Steinberg, 1991; Gifford & Dean, 1990; Ligon, 1988; McNamara, 1985). The analytical techniques varied from simple survey and personal interviews to the use of effect sizes. Percentages were used in two studies. Two articles reported using analysis of variance and Pearson correlation coefficients, but neither study had any tables showing the results. Six articles found a positive(+) relationship between extracurricular activity and academic achievement while only one found no significant relationship. Seven research articles reported Pearson correlation coefficients using extracurricular activity as the independent variable and academic achievement as the dependent variable. Three of the studies used the High School and Beyond national data base (Brown & Steinberg, 1991; Gifford & Dean, 1990; Ligon, 1988; McNamara, 1985). This data base generated 10, 613 and 7, 668, and 5, 209 students respectively for these two studies. One study used ACT information for the incoming freshman class of a small college (Harvancik, 1986). The three remaining studies were from individual high schools in the midwest, south, and in intermountain regions of the country (Castle, 1986; Leonardson, 1986; Neish, 1993). All seven articles reported a positive correlation between extracurricular activity and academic achievement. The correlation coefficients had a range from .209 - .56. Three studies used the same data base and two of the studies reported identical r values of .231. The third study reported a value of .432, which is almost twice the other two studies. Table 1 summarizes the information presented in the prior results section. Table 1 Author Gifford, V. Dean, M. M. <https://assignbuster.com/the-effect-of-extracurricular-activities-on-academic-achievement/>

31 ninth grades N= 771 in junior high 33 ninth grades N= 825 in senior high N= 10758 college frosh info. from ACT Analytic Technique Analysis of Variance (MANOVA) 'Threats to Validity population Conclusion 9th grade students in junior high participated in more ECA and higher GPA than 9th grade students in a senior high setting. Dvorak, J. Pearson Correlation Marsh, H. W. Camp, W. G. Pearson High School and Correlation Beyond database N= 10613 Multiple High School and Correlation Beyond database N= 7668 population Participation in high instrumentati school newspaper or yearbook staff on showed no significant influence on freshman college GPA Participation in population ECA has a positive effect on academic achievement. Student activity level has a significant effect on academic achievement. The effect was twice as great as study habits. Significant population correlation between instrumentati GPA and on participation in ECA population Leonardso n, G. R. Students in Correlation Coefficient private S high school in the Intermountain West N= 165 Neish, M. A. Students at Pearson Marysville Correlation High School N= 288 1985 senior class in midwestern high school N= 374 3 Wisconsin and 6 San Francisco High Schools N= 8000 Pearson Product Moment Coefficient Castle, T. D. Brown, B. B. Steinberg, Survey and Personal Interviews L. Newman, L. Harvancik, M. J. Survey and 303 personal schools interviews and 22 special ed. schools across the U. S. N= 10369 Pearson Incoming Product freshmen Moment at small southwest Coefficient rn college. N= 1067 Significant correlation between high participation in ECA and GPA vs. no participation in ECA Those thaZ Mortality participate in ECA Maturation achieve higher Population academic success, miss fewer days of school and experience fewer discipline problems Mortality Students in ECA Maturation had greater Instrumentat

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academic success than those who did not participate found students in athletics with lower GPA than those in leadership activities. Those special Mortality education students involved in ECA had a significant decrease in failed classes. History Population instrumentati on The positive correlation is questioned because of selfreporting of grades and ambiguous ACT questions concerning ECA. Population Ligon, G. Data base of Austin Independe nt School District Percentag es + Population Mortality McNamara Seniors Percentag , J. F. from 3 high es school in central Texas N= 515 Henriksen, L. Ball State University students N= 3125 SPSSX MANOVA effect sizes + Mortality Population + History Maturation Population Population Howley, C. Huang, G. High Regression . 23 School and 1 Analysis Beyond . OO database N= 5209 1 Study showed significant improvement in academic success for those in ECA after implementation of no pass - no play rule. Students that participated in high, moderate, or (OW numbers of ECA had higher GPA than those who didn't participate. The GPA and graduation rates were higher for students involved in ECA ECA in some form canenhance student achievement across all categories of school size. Selected articles that support the research question. A total of 5 articles that did not directly relate extracurricular activity to academic acliievement were analyzed for the support they added to the research question. These are summarized in table 2. Two articles compared extracurricular activities to self-concept andlor self-esteem. One study found a positive effect and the other no significant effect (Simeroth, 1987; Steitz & Owen, 1988). Two studies compared work to participation in extracurricular activities and academic achievement. Both studies agreed that a significant negative effect occurred (MacAithur, 1989; Marsh, 1991). Table 2 Articles That Support The Studv Author Marsh, H. W. <https://assignbuster.com/the-effect-of-extracurricular-activities-on-academlc-achievement/>

Analytical Technique High Regression School and coefficient Beyond data base N= 477 Sample + - Threats to I 1 Conclusions Work during high school had a negative effect on ECA and academic achievement High level of accuracy for self-reported information - validity population Laing, J. Sawyer, R. Noble, J, Simeroth, N. J. Steitm, J. A. Students percentage that took s the ACT in Feb. or April of 1986 N= 477 High regression school girls coefficient in Alaskasingle school N= 166 High multiple school in regression Memphis TN. N= 445 + instrumentati on population + instrumentati on selection population Females in ECA had higher self concept - population instrumentati on McArthur, S. S. Juniors in percentage 3 high s schools in a southern city N= 851 - population instrumentati on No significant difference between ECA and Self-esteem Work had a significant negative effect on GPA and participation in ECA. Threats to internal validity. All 19 studies were scrutinized for threats to internal validity as described by (Borg & Gall, 1989). The most common threat to internal validity was instrumentation. This threat emerged in 9 of 19 studies. The threat in most of these studies was caused by lack of information about the instrument. An example of this threat occurred in a study that used the Piers-Harris Children's Self-Concept Scale (Leonardson, 1986). There was no mention of the validity or reliability of this test in the study. This may account for the fact that these studies did not report any statistical analysis in their results. Mortality was a threat in 6 of 19 studies. This threat was common in the longitudinal studies as subjects were lost over a period of time. An example of this threat was in the study done in Wisconsin using a self-reporting survey given in two parts. Between the fall and spring surveys there was a high attrition of minority students (Brown & Steinberg, 1991). Maturation, regression, selection, testing, and <https://assignbuster.com/the-effect-of-extracurricular-activities-on-academic-achievement/>

history did not account for any significant threats to internal validity.

Conclusions The zero-sum model was developed to demonstrate a negative relationship between academic achievement and extracurricular activities. Participation in extracurricular activities was said to detract from academic pursuits (Coleman, 1961). If participation in extracurricular activities is harmful to academic achievement, then research studies should show a negative correlation between these variables (Camp, 1990). The opposite of the zero-sum model is the premise that extracurricular activities enhance academic achievement. The results of this study show that 17 of the 19 studies had a positive correlation between the two variables. Participation in extracurricular activities is positively associated with many student characteristics. Participation is associated with higher levels of self-esteem (Marsh, 1992; McNamara, 1985; Simeroth, 1987). Participation is associated with lower delinquency and absenteeism rates (Castle, 1986; Marsh, 1992; Newman, 1991). Howley and Huang, (1991), using the High School and Beyond data base, found that extracurricular activity across all sizes of schools exhibited a positive correlation on academic achievement. The academic perspective theory considers extra-curricular activities as purely leisure and not part of the purpose of schools. Those educators that profess to the academic development theory argue that work is a deterrent to academic achievement. In his 1991 study, Marsh found that work during high school had a negative effect on academic achievement and also had a negative effect on participation in extracurricular activities. McNamara (1985) concluded in his study that students benefit academically if they participated in high, moderate, or low numbers of extracurricular activity. He suggested a possible explanation might be that students who participate in <https://assignbuster.com/the-effect-of-extracurricular-activities-on-academic-achievement/>

extracurricular activities enhanced their commitment to the school, while students that work do not have that commitment. Camp (1990), using the High School and Beyond data base, found a significant effect on academic achievement when students participated in extracurricular activities. He did an effect size calculation which found the effect size for student achievement vs. extracurricular activity was twice as great as the effect size calculated for student achievement vs. study habits.

Correlation considerations

The correlation coefficient is used to express mathematically if a relationship exists between two or more variables. A positive value indicates a direct relationship, a negative value an indirect relationship. No relationship would have a value of zero. The amount of significance of a correlation coefficient is determined by the number of cases the correlation is based (Borg & Gall, 1989). This review of literature found 11 of the 19 studies using correlation as the analytic technique. The five studies that reported an r coefficient represented a unique sampling of the population. Three studies were high schools, one was a small college, and the fifth used the High School and Beyond data base, Five studies with a total sampling ($N= 7103$) found statistically significant results. Three of the 5 studies reported that the r value was statistically significant at the .01 level ($N= 1606$) (Castle, 1986; Hanrancik, 1986; Leonardson, 1986). This would allow the researchers to reject the null hypothesis that there is no difference between involvement in extracurricular activity and academic achievement. The study by (Howley & Huang, 1991) was significant at the .001 level ($N= 5209$), and the 5th study (Neish, 1993) reported only the r value of .56 ($N= 288$). The square of the r value yields the explained variance. The variance for this study is .31. This can be interpreted to mean that in this study, extracurricular activity can

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explain 31% of the variance in academic achievement. The results of this study show that participation in extracurricular activity has a small but consistently positive effect on academic achievement. The studies represented all regions of the country: small schools, large schools, colleges, and a national survey. The results indicate that extracurricular activities play a significant role in the development of a student's academic achievement.

Research limitations Fourteen studies presented the findings of their research as either a positive relationship between extra-curricular activity and academic achievement, or a negative relationship between extra-curricular activity and academic achievement. Poor instrumentation used to collect data might account for the lack of reportable data as a Pearson Correlation Coefficient. The reported findings would have more credibility if the authors were limited by publishing restrictions. Some of the data may have been omitted in the final writing. Another problem was the use of surveys, interviews, and self-reporting of factors such as GPA and participation in extracurricular activities. (Hawancik, 1986) questioned in his study whether the self-reporting of grades was reliable. He also questioned the ambiguous questions concerning extracurricular activity that the ACT uses in its self-assessment section. Laing, Sawyer, and Noble (1988) found just the opposite in this study. They found a high level of accuracy in self-reported information taken from ACT information. Researcher developed surveys that did not provide information about reliability and for pilot testing were problematic in these studies. Mortality would have a significant effect on the results. If the subjects that dropped out during the study were academically unsuccessful students, this would skew the results in favor of extracurricular activity benefiting academics. 'The opposite would be true if

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the missing data were of academically successful students. The most serious threat to external validity was sampling threats caused by self-selection of subjects. Extracurricular activity by its very nature is selfselecting. Therefore, the most significant question facing any researcher: " Is extracurricular activity the determining factor in academic achievement, or is there some other factor that is influencing behavior?" Summary A body of literature does exist that provides an understanding of the relationship between academic achievement and extra-curricular activity. The literature points to a positive influence on student performance for , those students involved in extra-curricular activity. Many of the studies compared activities to self-esteem, work habits, study habits, high school size, and parents' marital status. These factors are loosely associated with academic achievement. This study will focus on participation in extracurricular activity and its effect on grade point average. Chapter 3 Procedures Pur~ose The purpose of this study was to determine if students in extracurricular activities had a higher grade point average than students who did not participate in extracurricular activities. This chapter includes research methodology information such as sampling process, instrumentation, collection of data, definitions of terms, statistical hypothesis, and treatment of data. Po~ulation Sample and Valley High School is located in West Des Moines, Iowa, and is part of the West Des Moines Community School District. The district serves more than 45, 000 people who live in the Polk County areas of the western suburbs of West Des Moines and Clive, in parts of Urbandale and Windsor Heights and nearby rural areas. Covering 36. 6 square miles, the district has grown up around a former railroad center, Valley Junction, and the farmland north and south of the Raccoon River. This area offers an ever-increasing number of

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professional and retail services. Valley High School serves all of the students of the West Des Moines Community School District and has a student population of nearly 2200. Valley High School offers over 200 courses, and is accredited by the North Central Association. Traditionally the graduating class sends over 80% of its students to a college, university, or other post-high school educational program. The sample used in this study was the 1994 graduating class of Valley High School. There were 421 students in the senior class.

Instrumentation and Collection of Data In September, the Fall Senior Information Sheet was completed by all members the senior class at Valley High School. A copy of this instrument is of found in Appendix A. The survey sheet asked seniors to check every activity in which they participated during their high school career. This information was entered into the computer for each student. Grade point average was measured using a 4.0 scale. An assumption was made that grade point average was comparable from student to student. A further assumption was made that grading among teachers was comparable. In addition the size of the sample of the study was assumed to reduce the effects of extraneous concomitant variables. Student information was collected using the Query function of the SIMM software package on the IBM AS/400 computer system. Student confidentiality was maintained by assessing the data using student identification numbers. No individual student results were analyzed or reported by the researcher.

Grade point average and extracurricular activities listed on the Senior Information Sheet were generated by the computer system. The data were current through the end of the first semester of the senior year.

Definition of Terms The following terms are applicable to this study. Extracurricular activity. Any nongraded activity that requires students to extend their school

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day. These activities took place either before school, after school, weekends, or during holiday vacations. See appendix for a complete list of activities.

Grade Point Average. The average resulting from the conversion of letter grades to a numerical value from all courses taken in grades nine through twelve. The computation was on a four point scale. Participation.

Involvement in an activity that met at least twice a week. The activity duration was a minimum of two months and the student did not receive a grade for the activity. The student was to have participated in the activity for three years at Valley High School. Statistical Hypotheses This study was designed to answer the following problem: Is there a difference in grade point average between students who are involved in extracurricular activities and those who are not? The following null hypothesis was an outgrowth from this question: There is no relationship between student grade point average and student involvement in extracurricular activities. Treatment of Data It was the intent of this study to determine if a difference existed between grade point average and those who participated in extra-curricular activity and those who did not participate. Therefore specific criteria were established to differentiate between participation and nonparticipation. A student that participated was defined as having been involved in an activity that met at least twice a week for a minimum of two months. The student must have participated during a minimum of three years at Valley High School. Activities that met these criteria were athletics, cheerleading, drill team, class officers, debate, drama, newspaper staff, yearbook staff, dramatics, and W D M radio. The independent variable was participation in extracurricular activities. The dependent variable was grade point average.

The statistical analysis and data management system SPSS was used to <https://assignbuster.com/the-effect-of-extracurricular-activities-on-academic-achievement/>

analyze the data. Student I. D. number, grade point average, and involvement (yes or no) in extracurricular activities was entered into the computer. A frequency distribution was obtained for grade point average. A t-test statistical analysis was conducted to test the null hypothesis.

CHAPTER FOUR Analysis of the Data Introduction This study investigated whether students in extracurricular activities had a higher grade point average than students who did not participate in extracurricular activities. Grade point average was obtained from cumulative records in the registrar's office at Valley High School. Participation was determined using the Fall Senior Information Sheet. A total of 421 seniors were investigated in this study. The study was designed to either accept or reject the null hypothesis. The null hypothesis for this study was: there is no difference between the grade point average of students involved in extracurricular activities and the grade point average of students not involved in extracurricular activities. It is the goal of this chapter to analyze the data and present an interpretation of the findings. Results The following results were obtained using the SPSS statistical analysis and data management system. Data were entered for 421 Valley High School seniors using information from the school's computer data system. Table 3 is a frequency distribution of grade point averages of the 421 seniors at Valley High School. The average grade point average is 2.825. Nearly 24% of the students have a grade point average between 3.00 and 3.49. Table 3 Frequency of Grade Point Average for All Students

Grade Point Average	Student Sample	Percent
0.00- 0.49	0.50 - 0.99	1.00- 1.49
1.50- 1.99	2.00- 2.49	2.50- 2.99
3.00- 3.49	3.50 - 3.99	4.00- 4.49

Total Mean = 2.825 Standard Deviation = .7847 Table 4 is a frequency

distribution of grade point average for 176 students that participated in <https://assignbuster.com/the-effect-of-extracurricular-activities-on-academic-achievement/>

extra-curricular activities. The average grade point average for this group was 3.201. Thirty-one percent of these students have grade point averages between 3.00 and 3.49. Twenty-nine percent have a grade point average between 3.50 and 3.99. Table 4 a A v e r a a e of Students Involved in Activities Grade Point Average Student Sample Percent 0.00 - 0.49 0.50 - 0.99 1.00 - 1.49 1.50 - 1.99 2.00 - 2.49 2.50 - 2.99 3.00 - 3.49 3.50 - 3.99 4.00 - 4.49 Total Mean = 3.201 1 Standard Deviation = .6346 Table 5 is a frequency distribution of grade point averages of 245 students that were not involved in extra-curricular activities. The average grade point average of this group is 2.556. Twenty-three percent of these students have a grade point average between 2.00 and 2.49. Table 5 F m o f e r a a e of Students not Involved in Activities Grade Point Average Student Sample Percent 4.00 - 4.49 Total - - - Mean = 2.5556 Standard Deviation = .7722 Analysis of frequency tables establishes a pattern of difference between groups. The mean of 2.5556 which is the value of students not involved in activities falls below the mean of 2.8254 which is all students in the sample. The mean of 3.201 1 which represents students involved in activities is above the mean of all students in the sample. The statistical analysis used to determine if there is a significant difference between means was 'the t-test. Table 6 is a summary of data from the t-test. Table 6 T-Test Variable GPA Cases Mean SD SE Mean Yes Involve No Involve 1 76 245 3.2011 2.5556 , 635 , 772 . 048 . 049 Variances t-value df 99% Sig. Equal Unequal 9.10 9.39 4 9 1 4 1.42 1 . 0004999 . 0004999 Three basic assumptions must be met when using the tstatistic. The assumptions are: 1. 'The values in the sample must consist of independent observations. 2. The population sampled must resemble the normal curve. 3. The populations from which the samples were drawn must

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have approximately the same variability. The first assumption was satisfied by the criteria established for each group. It is not possible to be a member of the involved group and a member of the not involved group. The law of large numbers states that the larger the sample the more probable that the sample mean will be close to the population mean. The standard error of the mean for both samples was small. This also is an indicator of a normal distribution. The third assumption was satisfied by using the Levene Test for Equality of Variances. A value of $p = .000$ indicated that the variability between sample means was not equal. The SPSS statistical analysis and data management program calculated two t-tests based on the Levene Test. The unequal variance values in table 6 were used for the final evaluation of the null hypothesis. The null hypothesis for this study was: There is no difference between the grade point average of students involved in extra-curricular activities and the grade point average of students not involved in extra-curricular activity. Table 6 presents the findings of the difference between grade point averages of students both involved in extra-curricular activity and those not involved. A t-test was computed to statistically determine if a difference exists. The t value for the 421 members of the sample is 9.39. The probability of the t-test is reported as less than .000499. A significance level of .01 was established for this study. Since the t-test value is less than the significance level of .01, the researcher concludes there is a significant difference between grade point averages. The null hypothesis is rejected.

CHAPTER 5 Summary, Conclusions, and Recommendations Purpose the

Study of The purpose of this study was to determine if a difference existed between the grade point average of students involved in extra-curricular

activity and the grade point average of those not involved in extra-curricular
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activity. The study was accomplished using the senior class of Valley High School in West Des Moines, Iowa. Procedure The procedure involved using the Fall Senior Information Sheet. This instrument supplied the information pertaining to student involvement in extracurricular activities. The Valley High School computerized student data system supplied the grade point averages of the 421 seniors. The statistical analysis was done using the SPSS data management system. This study was designed to answer the following question: is there a difference in grade point average between students who are involved in extracurricular activities and those who are not involved? The following null hypothesis was an outgrowth from this question: There is no difference between the grade point average of students involved in extracurricular activities and the grade point average of students not involved in extracurricular activity. Conclusions The results of this investigation indicate that students involved in extracurricular activities have a significantly higher grade point average than students not involved in extracurricular activities. The mean GPA of students involved was 3.201. The mean GPA of students not involved was 2.556. A t-test was used to determine if a significant difference existed between the two means. A 99% confidence level was established. The results ($p < .000499$) of the t-test clearly allows the researcher to reject the null hypothesis. The results of this study are consistent with the review of literature. Not all of the literature studied used the t-test as an analysis tool. The most widely used analysis was correlation studies. Several investigators (Castle, 1986; Hawancik, 1986; Howley & Huang, 1991; Leonardson, 1986; Neish, 1993) found positive correlations between grade point average and participation in extracurricular activities which support the findings of this study. Self-selection is a factor

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that must be addressed in any study of extracurricular activities. Self-selection in this study may be the result of student choice. Over half the senior class did not meet the criteria for involvement. The question any researcher must ask is: Why do students elect not to participate? Self-selection may also be the result of institutional selection. Valley High School has a student population of nearly 2200. Ninth grade students in a smaller junior high setting have been found to participate in greater numbers than ninth graders in a larger senior high setting (Gifford & Dean, 1990). This may indicate that a smaller senior high school might allow a greater number of students to participate in extracurricular activities.

Recommendations

Further Research for The following suggestions are submitted by this researcher for further study.

1. The researcher is concerned that 245 students, or nearly 58% of the senior class, were not involved in extracurricular activities at Valley High School. Research designed to establish if size of the school is a contributing factor for nonparticipation may shed light on this problem.
2. Design a study that factored out behaviors that might influence academic achievement in addition to extracurricular activity.
3. Many studies lumped all extracurricular activities into one category. Studies might be done to see if particular types of extracurricular activities have an effect on academic achievement.
4. This study indicates that participation in extracurricular activity is related to grade point average. Research might prove helpful to determine if withdrawal from activities have an effect on academic achievement and/or study students who have high grade point averages but do not participate in extracurricular activities.
5. A study should be conducted to determine if extra-curricular activities during elementary and junior high school have the same effect as participation has

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on academic achievement in high school. 6. A replication of this study should be made to determine if participation in extracurricular activity has an effect on factors such as attendance, discipline, self esteem, and I. Q. What effect does socioeconomic status have on participation? Does dropping extracurricular activities affect these factors? 7. A study should be made of self-selection for extracurricular activities. Determine what factors contribute to self-selection and analyze their effect on academic achievement. 8. A study should be made comparing those who participate in extracurricular activities and those who don't and the career paths and progress.

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Meeting of the American Educational Research Association. (ERIC Document Reproduction Service No. 298385) Appendix A: Data Student

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

32 33 34 35 36 37 38 Grade Point Average 39 385 . 1 2. 00000 1. 96633 3.

04167 3. 79487 1. 67742 2. 36486 2. 68013 2. 44689 3. 92453 4. 02623 3.

24919 3. 32660 3. 96166 3. 69435 4. 01384 3. 12088 3. 75801 3. 61290 3.

73422 3. 81308 2. 69039 2. 84906 1. 94810 3. 55709 3. 38113 2. 817 2 1 2.

96029 2. 51852 3. 41053 2. 70107 2. 03367 3. 30450 3. 75092 3. 51601 3.

93266 2. 47619 3. 20623 Activity Involvement no no no Yes no Yes Yes Yes

no no no no Yes no no Yes Yes Yes Yes Yes no no no no Yes Yes no no Yes

Yes no Yes no Yes no Yes Yes no Student I. D. 39 40 41 42 43 44 45 46 47 48

49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72

73 74 75 76 77 78 Activity Involvement no no Yes no Yes Yes no no Yes no

no Yes no no no Yes Yes no Yes Yes Yes Yes no Yes no no no no Yes Yes no

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no Yes Yes no Yes no Yes Yes Yes Activity Involvement Yes Yes Yes Yes Yes
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 no Yes no Yes no no no no Yes Yes Yes Yes no Grade Point Average 2. 23488
 3. 45741 2. 77705 3. 03297 3. 54896 1. 9501 8 3. 92429 2. 81319 3. 80377
 2. 65660 3. 36700 1. 83908 1. 56757 3. 45946 2. 89320 3. 20539 3. 87220
 3. 33218 3 19414 . 3. 94464 4. 04984 2. 06406 3. 14377 3. 06415 2. 76457
 4. 09639 2. 34343 3 16955 . 1. 97924 3. 34520 1. 62667 2. 87213 3. 50164
 3. 27273 2. 94081 2. 31776 3. 35738 4. 00000 2. 83737 1. 65201 Activity
 Involvement no Yes Yes no no no Yes Yes Yes no no no no no no Yes Yes no
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 Student I. D. 159 160 161 162 163 164 165 166 167 168 169 170 171 172
 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189
 190 191 192 193 194 195 196 197 198 Activity Involvement no Yes no no no
 Yes no no Yes no no Yes Yes Yes no Yes Yes no Yes no no no no Yes no no
 no no Yes Yes no no no no no no Yes no no Student I. D. 199 200 201 202
 203 204 205 206 207 208 209 2 0 1 2 1 1 2 2 1 2 3 1 2 4 1 2 5 1 2 6 1 27 1 2
 8 1 2 9 1 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234
 235 236 237 238 Grade Point Average 3. 919 9 1 1. 70189 3. 14187 3. 43434
 2. 46367 3. 58478 1. 49822 3. 32601 1. 68498 2. 17438 3. 46326 3. 31803
 3. 69231 1. 77143 3. 6261 7 3. 66454 3. 17193 3. 06227 2 3 884 . 1 3.
 08418 3. 69550 3. 65495 2. 91 15 8 3. 48525 3. 01805 4. 00000 3. 98722 2.
 97436 3. 48754 3. 72318 3. 54579 2. 17794 3. 23323 1. 94030 3. 09825 3.
 23132 1. 36678 1. 73529 3. 53114 3. 78451 Activity Involvement Yes Yes
 Yes Yes no Yes no Yes Yes no Student I. D. 239 240 24 1 242 243 244 245
 246 247 248 249 250 25 1 252 253 254 255 256 257 258 259 260 26 1 262
 263 264 265 266 267 268 269 270 27 1 272 273 274 275 276 277 278
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Grade Point Average 1. 36546 2. 08333 3. 59596 3. 2081 9 2. 26389 3.
97568 3. 95415 1. 68592 2. 10040 3. 06050 3. 03396 3. 21 107 3. 87879 1.
85714 2. 5541 0 2. 901 10 2. 27509 2. 0661 5 2. 32028 3. 1 1744 1. 67547
3. 7444 1 2. 90657 3. 91919 2. 63345 3. 54325 3. 25979 2. 47619 1. 26180
2. 86505 4. 0 1246 2. 37722 2. 02951 2. 881 46 2. 63385 3. 1 7438 1. 71429
1. 66148 1. 68571 3. 79822 Activity Involvement no no Yes Yes no no no no
no Yes Yes Yes Yes no Yes Yes no no Yes Yes Yes Yes Yes Yes Yes Yes no
no no Yes no no no no Yes no no no Yes Student I. D. 279 280 281 282 283
284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300
301 302 303 304 305 306 307 308 309 3 0 1 31 | 31 2 3 3 1 3 4 1 3 5 1 3 6 1
37 1 318 Grade Point Average 2. 13278 3. 30796 3. 46886 1 37549 1. 91321
1. 65237 3. 78022 2. 06061 2. 54545 2. 51557 2. 38384 1. 68864 4. 07869
3. 4021 4 2. 68016 3. 05724 3. 94569 2. 94810 3-97444 2 17794 . 1. 79710
3. 34098 2. 91575 3. 44637 1. 54545 3 12088 . 1. 67509 3. 27402 2. 69550
3. 48718 2 14286 . 3. 04319 2. 61644 3. 83383 3. 88612 2. 315 8 1 2. 67766
3. 93266 2 11744 . 2. 62951 Activity Involvement no Yes Yes no no no no no
no no no no Yes Yes no Yes Yes Yes Yes Yes Yes Yes Yes Yes no Yes no Yes
no Yes no no no Yes no no no Yes Yes no Student I. D. 3 9 1 320 321 322 323
324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340
341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357
358 Activity Involvement Yes Yes no no Yes no no Yes no no no no no Yes no
Yes no Yes no Yes no Yes Yes no no Yes no Yes no no no Yes Yes no Yes no
Yes no no no Student 1. 0. Grade Point Average Activity Involvement 359
360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376
377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393
394 395 396 397 398 2. 80427 298901 1. 70242 1. 86505 3. 12069 1. 89591
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2. 14947 3. 23875 2 13253 . 3. 03114 2. 58113 1. 84116 1. 31692 2. 32967
 3. 82918 2 17297 . 3. 35275 1. 67442 2. 33333 3. 48754 1. 66557 1. 94444
 2. 23132 3. 08418 1. 52778 3. 13514 1. 76557 3. 44828 1. 47985 2. 78201
 3. 06137 3. 57509 3. 67173 3. 33564 2. 78201 3. 47604 3 10820 . 2. 99634
 3. 66387 3. 00346 Student I. P. 399 400 40 1 402 403 404 405 406 407 408

409 410 41 1 412 413 414 415 416 417 418 419 420 42 1 Grade Point

Average 2. 841 75 3. 32353 3. 02950 3. 08304 3. 89591 1. 72000 1. 32872

2. 1 3443 3. 32075 1. 79623 1. 67547 2. 58361 2, 29304 2. 06228 3. 1501 8

3. 48822 1. 97509 2. 1 1148 3. 02941 2. 37500 1. 5649 1 1. 87938 1. 08986

Activity Involvement FALL SENIOR INFORMATION SHEET NAME Last ADDRESS

STREET FATHER'S NAME MOTHER'S NAME First PHONE NO. CITY

OCCUPATION OCCUPATION SEX STUDENT # EXTRACURRICULAR ACTIVITIES:

INDICATE THE YEAR YOU PARTICIPATED (9Th, 10th, 11th, 12th). IF AN

OFFICER, WRITE WHICH OFFICE YOU HELD BESIDE THE ACTIVITY. AFS

Ambassador Amnesty Intrntl Art Club Baseball Basketball Care

Communicator Cheerleader Class Officer Cross Country D. A. R. E.. Debate

Dramatics Drill - Team Environmental Club FCA Football French Club Future

Nurses German Club Golf Intnti. Club Intramurals Journeyman Staff KWDM

Latin Club Mimes Nat'l. Honor Soc. Newspaper Staff Peopel Coach Russian

Club SADD 44 Science Club Shakespeare Club Soccer Softball Spanish Club

Student Senate Swimming Syncro Swim Tennis Thespian TLC Track Volley

ball Wrestling Yearbook Staff