An Assessment Of The Perceived Benefits Of Extracurricular Activity On Academic Achievement At Paramount High School

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Available at: https://scholars.fhsu.edu/alj/vol5/iss1/3

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One of the many problems facing today’s schools is the need to raise academic achievement while facing the continuing issue of budget limitations. Paramount High School is in a lower socioeconomic suburban community in southern CA. Eighty seven percent of the students in the district receive free or reduced lunch and 21.9% were below the poverty level. Forty percent of the high school students were foreign born, 71.8% speak a language other than English at home, 34% were identified as English Language Learners, 50% of the students’ parents never graduated from high school, and the 81% Hispanic population creates a high mobility rate to and from Mexico. In 2003 PHS was a decile 1 school according to the performance index score (Paramount High School WASC/FOL self-study, 2005). Just as none of the challenges are specific to this individual school, neither are some of the potential solutions.

Research Questions

Four research questions were explored for this study. The questions are as follows:

1. What effect does athletic participation have on student GPA’s?
2. What effect does music instruction have on student GPA’s?
3. What effect does athletic participation have on student STAR standardized math scores?
4. What effect does music instruction have on student STAR standardized math scores?
5. What effect does athletic participation have on student STAR standardized English/Language Arts test scores?
6. What effect does music instruction have on student STAR standardized English/Language Arts test scores?

Limitations/Delimitations

This study was limited to tenth grade students in the first semester of the 2005-2006 school year. Twenty five students comprised the control group of students not involved in any extracurricular activity and twenty five students made up each of the two experimental groups, one group of athletes and one group of music students.

Research Design

This was a quantitative study using the t test for independent means utilized at the 0.05% level of significance in order to determine the comparative results of students involved in the athletic or music extracurricular activities with students not involved either activity. Students were randomly selected using random stratification for all three groups.
Results From Question One: What effect does athletic participation have on student GPA’s?

Table 1
Sample Groups Mean GPA Variance Sample Size
Athletes 2.38 .311 23
Non-athletes 1.94 .706 23

Degrees of freedom = 38
Critical t-value = 1.69
Calculated t-value for athletes = 2.02

Results From Research Question Number Two: What effect does music instruction have on student GPA’s?

Table 2
Sample Groups Mean GPA Variance Sample Size
Musicians 2.85 .3 25
Non-participants 1.94 .71 23

Degrees of freedom = 37
Critical t-value = 1.69
Calculated t-value for musicians = 4.4

Results From Research Question Number Three: What effect does athletic participation have on students’ STAR standardized math scores?

Table 3
Sample Groups Mean Score Variance Sample Size
Athletes 337.08 3024.08 24
Non-participants 307.55 1877.63 20

Degrees of freedom = 42
Critical t-value = 1.68
Calculated t-value for athletes = 1.99

Results From Research Question Number Four: What effect does music instruction have on students’ STAR standardized math test scores?

Table 4

<table>
<thead>
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<th>Sample Groups</th>
<th>Math Mean Scores</th>
<th>Variance</th>
<th>Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Music students</td>
<td>350.23</td>
<td>2701.61</td>
<td>22</td>
</tr>
<tr>
<td>Non-participants</td>
<td>307.55</td>
<td>1877.63</td>
<td>20</td>
</tr>
</tbody>
</table>

Degrees of freedom = 40

Critical t-value = 1.68

Calculated t-value for music students = 2.9

Results From Research Question Number Five: What effect does athletic participation have on students’ STAR standardized English/Language Arts test scores?

Table 5

<table>
<thead>
<tr>
<th>Sample Groups</th>
<th>E/LA Mean Scores</th>
<th>Variance</th>
<th>Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Athletes</td>
<td>347.64</td>
<td>2226.16</td>
<td>25</td>
</tr>
<tr>
<td>Non-participants</td>
<td>323.6</td>
<td>1841.73</td>
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</tr>
</tbody>
</table>

Degrees of freedom = 42

Critical t-value = 1.68

Calculated t-value for athletes = 1.79

Results From Research Question Number Six: What effect does music instruction have on students’ STAR standardized English/Language Arts test scores?

Table 6

<table>
<thead>
<tr>
<th>Sample Groups</th>
<th>E/LA Mean Scores</th>
<th>Variance</th>
<th>Sample Size</th>
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</thead>
<tbody>
<tr>
<td>Music Students</td>
<td>382.61</td>
<td>2214.43</td>
<td>23</td>
</tr>
<tr>
<td>Non-participants</td>
<td>323.6</td>
<td>1841.73</td>
<td>20</td>
</tr>
</tbody>
</table>
Degrees of freedom = 41
Critical t-value = 1.68
Calculated t-value 4.3

Summary
In each of the tests the calculated t-test statistics for students involved in athletics and music students surpassed the critical t-value showing that there was a statistically significant difference between both athletes and non-athletes and music students and non-music students in terms of cumulative GPA, math standardized testing, and English/Language Arts standardized testing.

Recommendations
Even in the midst of public schools facing budget cuts and eliminating what they consider superfluous programs while expecting to raise academic achievement most schools have kept their athletic and music programs simply out of tradition and accepted school culture norms. However, in this study students involved in athletics or music instruction as extracurricular activity outperformed their non-participating counterparts academically on standardized testing as measured by math and English/Language Arts test scores and cumulative GPA’s, showing that administrations, faculty, parents, students, communities, and all stakeholders should not only tolerate extracurricular participation, but encourage it. Athletics and music instruction are two programs that many high schools already have that show to increase academic performance without any additional budgeting, increasing teacher workloads, increasing school hours, or requiring implementing anything new. The bottom line with extracurricular activity may be academic improvements with minimal time, effort or money.