Academic Leadership: The Online Journal

Volume 8
Issue 3 *Summer 2010*

Article 44

7-1-2010

The Benefit of Extracurricular Activities in High School: Involvement enhances academic achievement and the way forward

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Academic Leadership Journal

Introduction

Research and data have been cited for over four decades about extra-curricular activities both sports and non sports related. Non sports related reference such activities as government, publication, journalism, math, and non specific leadership. Although there appears to be much data individually supporting each as a whole limited studies seem to be available. Depending on the region many schools urge and push sports as extra-curricular but do not necessarily promote sports for the benefit of the student, unfortunately more-so for the benefit of the school. Just as there were skeptics more than three generations ago today some still exist, stating that school is to teach children to read and write, not be a part of a club or that it is distracting and unproductive (Marsh, 2002).

Today unfortunately distractions are everywhere. We are in a technologically advanced world where socializing and interactions with others is appearing to be a lost art. Texting, twittering, or even online gaming has replaced conflict resolution enriched tasks, such as personal interactions, expressions, and gestures. Our youth do not interact with people as much as they did even ten years ago. Children are still required to go to school that is a constant and there are extracurricular activities available for our youth, although limited by funding at times and in some cases not promoted from within. O'Dea expressed in 1994 that educators who believe in the developmental perspective see activities outside normal curriculum as an extension of the educational program. Extra-curricular activities allow youth to develop skills such as leadership, values, sportsmanship, self worth, as well as the ability to deal with competitive situations. He stated "the developmental minded believe that these skills would be impossible or very difficult to develop in a classroom setting". This is part of the unwritten curriculum. Students are only going to get so much out of the classroom and it is up to the educator to express, push, promote these additional activities which will enhance the student's social and societal skills, from what they do not get at home.

Programs such as Promoting Achievement in School through Sports (PASS) and "no-pass no-play" were originally designed to promote the back to basics approach to academics. These programs may have changed names over the years but still strive for the same end result: academic achievement. Although originally more prominent in sports activities these guidelines also hold their own with the academic extra-curricula's too. Whereas the student is motivated by knowing that improved grades allow them to participate in activities. School supported extra-curricular activities do have ulterior motives that the student may not be aware of. It does give the student time to spend with their friends away from the classroom and even home. These activities also promote problem solving, social interaction skills, conflict resolution and even result anticipation.

Hypothesis

This study reviews the hypothesis that High School students that participate in extracurricular activities display higher academic achievement as well as a discussion to the "way forward". The assumption is that schools provide the same or equal level of classroom academics. Limitations on this study include

short amount of time for study and restricted data gathering. Only certain records and specific information is available publicly due to confidentiality which cause this study to be narrowed even further. There is data available from additional studies that have proven helpful, which are used to supplement this report.

Literary Review

Extensive research has been conducted on the subject of extracurricular activities positively influencing academic achievement. Research dating back to the 1960's has been documented when one of the first studies, specifically tying sports to achievement as stated by Danielle Tower, University of Connecticut that cited studies made by Walter E. Schafer, associate professor of Sociology, University of Oregon in 1969 to more recent studies, identifying motivation theories by Dr. Maarten Vansteenkiste professor of psychology in 2006, who has been cited over 300 times and written multiple articles and works pertaining to motivation and behavior. Mr. Tower was very thorough in his research and careful in choosing his resources. This article was found to be limited to only sports even though the study was conducted over a wide range of time still narrow in spectrum.

Edward L. Deci PhD and Richard M. Ryan PhD currently at the University of Rochester have written several pieces on motivation, motivational processes, and human behavior dating from 1975 to 1991 their continued partnering in these areas has been very helpful to the research and developmental understandings of our youth. Both of these Doctors have very impressive biographies to include at least one book publication.

James W. O'Dea presented in 1994 his Thesis to Drake University where it was accepted and then published by his advisor Dr Michael Johnson and Dean of Education Dr Richard Schwab. Mr. O'Dea is now a faculty member at the Drake University. His research included a sample of two hundred twenty out of four hundred seniors in Des Moines, Iowa high school. There is little more known about Mr. O'Dea but his research speaks volumes. His methods are sound and his resources have been validated.

In the 2002 Harvard Educational Review Journal an article written by Herbert W. Marsh and Sabina Kleitman caught my attention. After contacting the publisher and acquiring the full article I noted that they had culminated many opinions of earlier works which accused educators of rejecting and resenting extracurricular activities in the schools prior to 1990. Despite these accusations Marsh and Kleitman went on to conduct their own research utilizing the National Center of Education Statistics and the NELS:88 data to prove an importance as well as the benefit from extracurricular activities. Their study spanned results from students a decade earlier to present (2002) as well as a follow-up of students that had graduated ten years earlier. The national U.S. data gathered was very concise and the use of multiple analysis techniques more than validated their study. Herbert W. Marsh is an educational psychologist who has published influential research on self-concept, motivation and university students' evaluations of teaching effectiveness. He is currently a faculty member of Oxford University. Dr. Sabina Kleitman, is a psychology professor is at The University of Sydney. The pair conducted surveys of over 12,000 American students to find a correlation between sports and grades (Wikipedia 2010).

The Dec 2005 edition of Journal of Youth and Adolescence featured an article written by Dr. Jennifer A. Fredricks, Assistant Professor of Human Development, Connecticut College and Dr. Jacquelynne S.

Eccles, Psychology Professor at the University of Michigan. Both of these Doctors major research lie within motivation, adolescent development and school engagement. Their research covers a wide range of common activities from fine arts to sports. Cited works are from well known and peer reviewed sources. Dr Fredricks and Eccles also performed their own empirical study and documented their findings. Their primary grouping was 7^{th} to 12 graders of the same school year.

Juan Antonio Moriana, professor of Psychology, University of Cordova Spain, 2006 was also on the similar trek. He studied over 12 schools and involved a sample of 222 students. His study not only analyzed sports but other activities and background factors as well. This article was pier reviewed and published in the Journal of Research in Educational Psychology. I have found this article, research and author to be valid; however I found no timeline on his study, or stated need for follow-up.

Joseph L. Mahony Department of Education, University of California, while at Yale wrote an article touching on the long term educational attainment of extracurricular activities. This study was conducted over eight years. His research and research team was also meticulous in their data gathering and tested multiple areas to prove their theory. He has been cited over 200 documented times and wrote several articles and papers regarding the development of youth.

The overall data that I was able to find and acquire is quite in-depth and specific to the comparison of extracurricular activities and the academic achievement in our youth. Although research has been cited as far back as 1969, not until the last ten years has it been highlighted as an importance to the development of a teenager, regardless of location: Sydney, Spain, or even here in our own back yard the United States. Previous findings and current studies are covered within this report.

Previous Research Statistics

Early research in this area was primarily based on those in sports and the theory was that sports involvement was the only extracurricular activities that were recognized. Any other activity outside the class room as thought of as a distraction and therefore dismissed as being one of benefit. The results of studies by Marsh 1992, Holland and Andre 1987 presented views, that even though there had been several studies trying to link extracurricular activities to higher grades the studies were just not taken as substantial. Many noted that there was just not clear cut line between those students that are already motivated and eager to learn being part of additional activities and those students joining for ulterior motives. Despite the uncertainty, recent studies and evaluations have continued to show the positive results in being part of activities outside the classroom. More specifically (Gillman, 2001) identified a higher school satisfaction and higher internal locus of control in teens. Mahoney goes on to state that students participating in extracurricular activities were also less likely to drop out of school.

A study conducted in Des Moines Iowa in 1994 concluded a significant difference in GPA and those who participated in extracurricular activities. O'Dea (1994) Chose 421 graduating seniors, he presented them with questionnaires in September 1993. His assumptions were stated; grading was comparable from student to student as well as from teacher to teacher. From the dated questionnaire he used the end of term grades from each of the students to further conduct his evaluation. The overall average grade point was 2.825 of a 4.0 scale and of those who participated in extracurricular activities 24% of them were between 3.00 and 3.49. The standard deviation was 7847; the average GPA for those participating in extracurricular activities was 3.201. Two hundred forty-five students did not participate in additional activities had GPA average of 2.556, 23% of these students GPA range from

2.00 to 2.49. His outcomes were concise and supported the theory that extracurricular activities are beneficial and needed. Additional studies were recommended such as, do these activities have the same long term results during elementary and junior high,

Marsh, Kleitman 2002, used a longitudinal study of grades 8, 10 and 12. Their valid sample size was 4250 of 12084 eligible. Their study also included extracurricular participation in and out of school, number of activities, time spent in activities and frequency of participation. They noted that females were involved in more activities than males but spent less time in each. March finally concluded after statistical analysis of the National Education Longitudinal Study (NELS:88) report that both in school and out of school activities provides a positive association with higher grades. They went on to state that their finding revealed specifically that students seemed more favorable to in-school activities vs. out of school activities but favored out of school activities to out of school leisure activities. Although this study was based off of a national report spanning different subpopulations and provided a diverse range of outcome variables which were used to make a reasonable evaluation of extracurricular activities and improving grades.

From the Department of Psychology, University of Cordova Spain a report was filed by Juan A. Moriana et al (2006). They selected 12 schools to evaluate the correlation between higher achievement and the participation in extracurricular activities. Within this analysis nine public and three private schools and a total of two hundred twenty-two students were evaluated. Not only did this study reveal that higher grades were prominent with students that were involved in activities outside the school day but more-so with those in study-related activities (Moriana, 2006). Subject analysis was conducted to ensure the compatibility of test subjects by performing the analysis of variances, posteriori comparisons and homocedasticity analysis all three test validated their choice in test subjects. Moriana (2006) stated that it is reasonable to conclude that students involved in after-school/extracurricular display greater achievement. He went on to say that there was even a greater benefit if the student had a balance between academic activities and sports.

From 1994 to 2006 several studies have been posted which even have references back as far as four decades. All of which conclude very similar findings, suggesting that students that participate in extracurricular activities benefit academically as well.

Current Study

I evaluated two different High Schools located in Wichita Falls, Texas. Interviews were conducted with the principal and teachers to gather survey results. The first school, a sample was taken of 31 students grades 9 through 12 and a T-test comparison was performed. They were put into two categories participants and non participants. Time did not allow for in depth questioning about backgrounds, parents, or parent involvement. I was only permitted limited information and time. The following was determined:

The second school was evaluated on the TAKS results from 62 students 2009. The data received by the state is annotated as pass/fail on the schools results document. To

P value and statistical significance:

The two-tailed P value is less than 0.0001

By conventional criteria, this difference is considered to be extremely statistically significant.

make this data usable for this evaluation the following conversion was made; 1=pass 0=fail this data was also calculated using the t-test and yielded the following results:

Confidence interval:

The mean of participants minus non participants equals 27.71

95% confidence interval of this difference: From 23.42 to 32.00

Intermediate values used in calculations:

t = 13.2171

df = 29

standard error of difference = 2.096

Group	participants	non participants
Mean	89.56	61.85
SD	5.14	6.54
SEM	1.21	1.81
N	18	13

Of the 32 selected students 4% were non participants and of them 50% were also failing. The other 50% were struggling academically.

P value and statistical significance:

The two-tailed P value equals 0.0061

By conventional criteria, this difference is considered to be very statistically significant.

Confidence interval:

The mean of participants minus non-participants equals 0.27

95% confidence interval of this difference: From 0.08 to 0.46

Intermediate values used in calculations:

t = 2.8405 df = 60

standard error of difference = 0.095

Group	participants	non-participants
Mean	0.94	0.67
SD	0.25	0.49
SEM	0.04	0.13
N	47	15

Of the 47 students that were participants 94% were received "met standard" and of the non participants only 66% "met standards".

Even with this limited local evaluation, there is still significant data supporting the claim that extracurricular activities promote higher academic achievement.

Why Extracurricular Activities are Important

From the previous research as well as my own findings this report more than proves the correlation between extracurricular activities and academic achievement. There is more to just the end result of higher grades there is the "why" factor, why is this important, what do the students gain from these activities that is so beneficial? Then answer is character, skills, social, reduced risk, and of course academic betterment.

One definition of character is: the inherent complex of attributes that determines a person's moral and ethical actions and reactions; "education has for its object the formation of character"- Herbert Spencer. Students learn and develop this attribute through outside activities and apply the moral and ethical skills to study habits, as well as their lives. Rombokas (1995) stated, activities such as athletics, music, theater, and organizations teach students how to discipline themselves through drill, rehearsals and practice. Students will gain self respect and greater self worth though participation and the opportunity to succeed outside the classroom. Deci and Ryan (1985) discuss their Self Determination Theory the hierarchical model of motivation. Motivation is a key factor in the success of life, we must be motivated to do our jobs well, and we must be motivated to complete our course work. A teacher may

not always be able to motivate from within the class room whereas along with other benefits extracurricular activities provide motivation as well.

Life long skills are also attained by the involvement and participation in extracurricular activities which directly influence their studies. Involvement teaches organization and time management skills which is very valuable in society as an adult. Since activities take up time after school which is very limited to many students they must juggle homework, chores, and the time allotted to participate in a desired program. Other activities such as music, or acting help with the development of analytical skills, and additionally problem solving.

Those students who are already high achievers, extraverts and that have a high self worth will most likely do well anyway, they will seek out activities that challenge them. But what about those at high risk, with low self esteem, and have little to no friends or social interaction. Those students are at a greater risk of dropping out and not completing school. The opportunity of extracurricular activities to a high risk student is quite valuable. This opportunity gives them a chance, belonging and improved self worth. Participation in additional activities also reduces discipline problems in many cases.

Struggling programs

If extracurricular activities are great and beneficial why are many schools cutting programs or only making available limited opportunities? The current struggles of school districts all boil down to funding; the lack of funding to each school district limits what they can do. Once the priorities are set in place and necessities paid for unfortunately there is very little left for the extracurricular activities such as band, or drama. Many states are also consumed by the pressures forced on them by standardized testing as well as the stressors this puts on the student. Texas has the TAKS tests which not only pressures the student with possibly being held back or additional class but the pressure of the school being rates as incompetent. In turn the school district spends an enormous amount of time preparing for the annual tests each year. Does this wear on motivation: yes! These stressors within the school system do in fact weigh on the participation in extracurricular activities.

The schools that are able to have a wide range of extracurricular activities studies also show that there are still those who do not participate. We have already stated that these activities are valuable and beneficial to students, why would they still not participate? Promotion from within has a lot to do with student reframing from activities. If a teacher is not promoting and developing the student's motivation "planting a seed" then those with low self worth will not have the motivation to act on their own. A second challenge that faces all teachers is the lack of parental involvement. Teachers must make an effort to not only promote extracurricular activities but also encourage participation from the parents. Keep in mind those from low socioeconomically challenged backgrounds. Many activities may be accomplished with low cost or well managed budgeting. Reflecting on the dropout rates of Texas alone in the past eight years there has been an increase from 3.6% to 4.0%, Michigan has had one of the largest increases of 2.9% (NCES, 2010).

Discussion/Conclusion

Over four decades of tests analysis and reports have been conducted and developed that prove there is a direct relationship between extracurricular activities and academic achievement. However I noticed that there was not a solution to our increasing dropout rates or to our ever so gradual sliding behind in

technology as compared to other advanced nations. Future research could include more specific longitudinal studies following a baseline of junior high students into adulthood. This research is far beyond the scope of this paper but seems to be the next logical step in the way forward effort of providing the most for our youth. We are not animals and this is not survival of the fittest. We are talking about human beings that have the unimaginable ability to think, compute and rationalize given the proper environments and enrichment.

Dr J. Quinn (2004) stated that afterschool programs enhance the academic lifestyle by providing non threatening remediation, support and most importantly enrichment. All three of these attributes can be incorporated in after-school activities. From chess clubs to sports programs these children receive additional exposure to new ideas and relationships. Of course sports programs help to develop teamwork, critical thinking, conflict resolution but we must realize that there are less aggressive activities that contribute much the same. Studies also indicate that participation in extracurricular activities reduce alcohol use and create a more favorable perception of peer groups (Fredricks, 2005). Take a cooking program which involves reading and math skills, there are many opportunities that will not bankrupt the school. Extracurricular activities tie classroom curricula to the real-world. The difference between success and failure has been simply identified as how a student spends their after-school time (Quinn, 2004).

Our country has grown both physically and psychologically complacent, and believes that all is well and we are still on top of the world. This simply is not true and unless we challenge our youth, develop them morally, analytically, into problem solvers and solutionists our country may soon fail. The youth of today is our future. The reports are based in substantial facts and should be presented to higher levels of academia for curriculum review and implementation within each school system. An inner city teenager should have the same opportunities as a Midwest urban school teenager does. Anyone can memorize facts and figures but it takes development and stimulation for one to be able to understand problems and analyze situations. The educator is the first line of defense and should also be the loudest voice rallying the parents and faculty to push the need of diverse extracurricular activities in each school system for the betterment of our future. Being a teacher takes a considerable amount of time, it is a lifestyle; a subculture if you will, not a job. There is more to learning than what a child receives within the four walls of the classroom.

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