High School Sports and Academic Achievement

Stacy Ludwig

Chadron State College

April 7, 2010
Abstract

The effect of athletic participation on student learning has been debated among parents and educators for many years. As a result, there has been much research done to determine if participating in high school sports leads to better academic performance. This research has shown both positive and negative effects and the need for even more investigation into the topic. A direct link between athletic participation and academic achievement has been difficult to establish; however, there are many examples of the indirect benefits of sports as an extension of a high school's educational program. Through participation in sports, students can develop more than just athletic ability.
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High School Sports and Academic Achievement

Many of today's educators and parents are concerned that participation in high school sports takes too much time away from the purpose for which school was initially developed... education (Nicles, 2000). Many critics also believe that too much emphasis is placed upon athletics in our high schools.

However, supporters of high school sports point out that athletic participation increases students' academic motivation, improves their grades, keeps them in school, and raises their educational aspirations (Din, 2005-2006). Longitudinal studies of high school sports have suggested that athletic participation increases grades and test scores, but researchers are still trying to figure out why sports may help students achieve (Broh, 2002).

The relationship between high school sports participation and academic achievement has been and remains a topic of debate. As the number of students participating in sports continues to grow, understanding the correlation between high school athletics and educational achievement will become even more important.

Once the competition phase of the spring sports season begins, track and golf coaches across the state of Nebraska and the nation will be taking students out of school once and sometimes twice a week. Many teachers get upset that athletes participating in these sports miss so many days of school. They also have concerns about athletes who have to leave school early for basketball games, volleyball games, and cross country meets throughout the year.

School sponsored sports teams have been a part of the high school experience for decades, and every year students spend countless hours practicing for and competing as members of these teams. Investigating the relationship between participation in high school sports and
academics is crucial to understanding how athletics can be used as a tool by parents, teachers, and coaches to promote educational achievement.

**Statement of the Problem**

The purpose of this study is to investigate the relation between participation in high school sports and academic achievement of high school students. Nicles (2000) offered a definition of high school sport, "For an activity to be considered a sport, the sport must be a school sponsored team sport. This includes sports where participants individually participate, but contribute to a team, for example, track and field" (p. 9). Academic achievement includes how and what children learn, homework completion, grades, high school completion, and aspirations for postsecondary education (Rosewater, 2009).

**Review of Related Literature**

**Introduction**

The Educational Resources Information Center (ERIC), Wilson Web, and NebraskAccess were the primary data bases used for research. Key words/phrases used in the search for resources included *academic achievement, athletic participation, high school sports*, and *athletics and academics*. The references used in this literature review include journal articles, theses, a seminar paper, a research report, and a fact sheet.

**Positive and Negative Views**

Even though more research is being done into this topic, there remain many questions regarding the academic benefits derived from participating in high school sports. Some studies have found that athletic participation can increase students' overall interest and commitment to schooling and create more positive attitudes about education. In addition, sports participation increases student-teacher contact and parent-school contact (Din, 2005-2006). However, Din
also pointed out that participating in too many sports activities can have a negative effect. A lack of balance between academics and athletics can result in diminishing returns for students.

Stegman and Stephens (2000) have examined reports that reveal both positive and negative relationships between athletics and academic performance as well. On one hand, they have found surveys that reveal participants in sports academically outperforming non-participant classmates, and in some cases, doing so during the time they were competing. They also pointed out a U.S. Department of Education study that showed that students participating in extracurricular activities, especially sports, were three times more likely than their classmates to have a 3.0 GPA or better (Stegman and Stephens, 2000).

Cutright (1983) found some longitudinal studies that link sports participation to lower grade point averages over a four year high school career (as cited in Stegman and Stephens, 2000). Her findings also pointed out that while participation in athletics can help some students, it does not help them all. Studies have also shown that participation in athletics may not help academically, but it may not hurt, either.

**Indirect Effects on Academic Achievement**

Behavioral expectations learned through sports participation can translate into a desire for better academic performance. Marsh (1993) indicated that students who participate in sports have higher academic self-concepts and work ethic, which results in more reliable school attendance and more time spent on homework (Broh, 1999). However, it is difficult to make the connection between this evidence and grade point average.

Broh (1999) pointed out that while high school sports participation may not have a direct positive effect on academic performance, it does have an *indirect* positive effect. His study examines three explanations for this: the Developmental Model, which suggests that sports
builds character; the Leading Crowd Hypothesis, which suggests that sports connects athletes to academically-oriented peers, and social capital, which suggests that sports connect students, parents and school (Broh, 1999, p. 8). Din (2005-2006) also discussed the idea of social capital by citing evidence of more student-teacher contact and more parent-school contact regarding students participating in sports and their families.

Rosewater (2009) believed that "The more persistent the participation over time and the more engaged in an activity youth become, the robust the impact on academic measures" (p. 3). She also stated that "organized sports can help students succeed in school and life" (p. 2). However, a clear understanding of how athletics contribute to positive educational outcomes remains to be found. As mentioned by Stegman and Stephens (2000), at this point in time, most published reports regarding the relationship between sports and academic achievement has centered on male student-athletes.

**Athletics as an Extension of the Educational Program**

Studies have also shown that many educators and parents see sports as an extension of the educational program a school provides (O'Dea, 1994). These individuals believe that athletic teams can provide learning environments in the non-school hours. Through participation, students can develop leadership, sportsmanship, self-discipline, self-confidence, and many other skills and habits necessary for success in the classroom, sports events, and daily life (Hartmann, 2008). These ideas are echoed by Stegman and Stephens (2000), who found that significant statistical improvements in grades may not result from athletic participation, it does instill qualities such as goal-setting, teamwork, and self-discipline, which will benefit students in all areas of their lives (p. 2).
Intrator and Siegel (2008) have examined the connection between sports involvement as an extension of traditional education as well. While students may not learn specific academic skills through athletic participation, they do develop skills that Intrator and Siegel refer to as "supercognitives," which are more than just cognitive and include the use of multiple forms of intelligence and judgment (p. 19). Regarding supercognitives, their 2008 study stated the following:

These attributes include attitudes, skills, and behaviors such as (1) the ability to work with a team, (2) time management and punctuality, (3) the capacity to avoid or manage conflict, (4) resilience, (5) tolerance, (6) self-discipline, (7) self-direction, (8) industriousness, (9) communication, (10) problem recognition and resolution, (11) integrity, and (12) competitiveness (p. 19).

Intrator and Siegel believe it is a mistake to categorize these supercognitives as soft skills to be marginalized in the educational system rather than necessary skills for success in college and the 21st century workplace. They see supercognitives developed through sports as a foundation for academic achievement.

**Contributing Factors**

Some researchers have pointed out that there are many factors that contribute to improved academic achievement in relation to sports. Snyder (1975) believes that athletes are part of an elite crowd that is treated with favoritism by school staff (as cited in Nicles, 2000). This extra attention from teachers helps them in the classroom. Durbin (1986) echoed a similar idea when he stated that athletes are more respected by fellow students and school staff than are other students. As a result, athletes earn higher grades because they have higher expectations to
live up to (Nicles, 2000). Parents of student-athletes often have higher academic expectations for their children as well.

During his research, Din (2005-2006) discovered that incentives to stay academically eligible for sports during the in-season time may motivate students to perform at levels equal to or higher than levels they were performing at in the off-season. According to PE teachers he interviewed, students under pressure to stay eligible tended to manage their time more efficiently with or without help from their teachers or coaches. The evidence may suggest that participation in sports has a positive effect on academic achievement in this case, but Din felt that more research was needed before it could be verified.

As mentioned by Hartmann (2008), just because there is a correlation between sports participation and academic achievement that doesn't necessarily indicate that sports are the cause of this achievement. Sports do not automatically contribute to the academic achievement of an individual. He wrote, "In fact, scholars and other experts believe that the relationship between sports participation and academic achievement--or any other type of positive social outcome, for that matter--is far more complicated, multifaceted, and contingent and less direct than this" (p. 9). A number of factors such as social background, type and intensity of the sport participated in, and how athletic activities are connected or not connected to academic activities and attitudes need to be considered as well (Hartmann, 2008, p. 23).

The attitudes of teachers, coaches, and other school staff toward student athletes could be one reason for their higher academic achievement compared to that of non-student athletes. Nicles (2000) pointed out that athletes are often more respected by school staff and can earn higher grades because they have higher standards to meet as a result. They may also receive extra attention from teachers and coaches. They then have additional adult resources to guide
them and provide academic assistance. This gives them a substantial advantage over students who don't participate in sports. Hartmann (2008) expanded on this idea by stating, Coaches who also teach and strongly encourage academic success (above athletic success) and teachers who support athletics are the most effective in promoting academic achievement” (p. 22).

Other studies suggested that there is a logical link between mental and physical abilities. Good students are more likely to be involved in extracurricular activities, and sport is just one of them. Therefore, there will be a correlation, but no cause-effect relationship between educational achievement and sports participation. Broh (1999) supported this idea by stating, "It is possible that students who are more successful in school are also more successful in other areas, such a sport” (p. 10).

**Limitations of Research**

He also addressed a number of limitations of research into this topic in his thesis. Two of these are non-representative samples and the use of cross sectional designs. At this time, few researchers have examined a nationally representative sample, and most research has included male participants. It is difficult to establish a nationally representative sample because race, gender, school year, socio-economic, and prior educational experiences of students have to be taken into consideration as well as sports participated in. There could be a wide range of results between eighth-grade female tennis players and twelfth-grade male football players or tenth-grade male basketball players from an affluent suburb in California and tenth-grade male basketball players from a poor rural area in North Dakota.

He recommended using a longitudinal design to measure the effects of athletic participation upon grades. This type of research may not be ideal, but he felt that "a longitudinal
design is a more convincing method for establishing causal order between independent and
dependent variables than a cross-sectional design" (p. 6).

Another difficulty in conducting a study into this topic involved the definition of
academic achievement. Some researchers focused solely upon grade point average (GPA), while
others looked at ACT scores or other standardized achievement tests. The question of when
academic achievement should be measured was also varied. Some researchers conducted pre-
season tests and post-season tests, while others compared in-season and off-season scores.

One also needs to consider the amount of participation by individuals and its affect on
academic achievement. The question arises, Is a three-sport student-athlete more positively or
negatively affected than a one-sport or two-sport athlete?

Affective variables such as student attitudes towards school and learning were also
considered in some studies. One study indicated that high school athletes are more likely to have
positive relationships with their schools than high school students not involved in athletics. This
same study suggested that athletes created fewer discipline problems than non-athletes, and
athletes were less likely to drop out than non-athletes. In a study of 14,249 high school students,
athletes were 1.7 times less likely to drop out than non-athletes (Team-Up for Youth).
These affective variables may have an indirect effect on academic achievement, but they don't
indicate a direct cause-effect relationship. A clear definition of academic achievement is
necessary to effectively research this topic.

Summary

The relationship between athletics and academics is complex. For this reason, it is
difficult to analyze it and unpack "the basic, positive correlation between interscholastic sports
participation and individual educational outcomes" (Hartmann, 2008, p. 23).
At this time, there is no clear answer regarding the relationship between high school sports and academic achievement. However, millions of American children participate in sports every year, and sports make up the largest category of after-school activities available. As Rosewater (2009) points out, "What happens in the context of sports activities matters." It will help educators and parents to learn from current research and make sure that children "reap all the benefits possible from their participation" (Rosewater, 2009). As sports continue to grow in popularity, it will be important for educators to determine if and to what extent high school sports are the gateway to academic achievement.

**Statement of the Hypothesis**

For the purpose of this study, sport is defined as a school sponsored activity that allows individuals to participate and contribute to a team. Academic achievement includes the student's report card grades, the student's attitude toward school and school attendance, and aspirations to attend college. Over the years, much cross-sectional research has been conducted into the effects of athletic involvement and academic achievement, and researchers are still trying to better understand the correlation between the two variables. However, Miller (2005) describes the relationship between high school sports participation and scholastic achievement as a "fact, well-established" (as cited in Hartmann, 2008, p. 7). Therefore, it is hypothesized that high school students will demonstrate a positive correlation between participation in high school sports and academic achievement.
References


