
Sports and Math: A Winning Combination?

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Jordan G. Cohen is a high school junior at Brentwood School in Los Angeles, Calif. This past summer, Cohen, a soccer player and long-time sports enthusiast, attended the Wharton Sports Business Academy and the Wharton Moneyball program, which gave him a chance to explore the business of sports and to dive into the world of sports analytics and statistics. These experiences helped him to realize that an educational idea he had been developing could truly become successful. In this essay for KWHS, Cohen introduces us to “StatsCenter,” his soon-to-launch video series to help teach statistics to high school students.

Sports are arguably one of humanity’s greatest connectors. Like music or food, every culture and people find expression through sports. That idea is something of a paradox, as sports can be divisive. Games and matches are played “against” and “versus,” and are about besting the other team or outdoing your opponent; about the spirit of competition and rivalry. Yet, overwhelmingly, sports bring people together in powerful ways. I have had the pleasure of learning this over a short lifetime as an avid player of soccer, the “beautiful game.”

An Aversion to Math

Sports can do more than simply connect people with one another. They have the power to connect people with ideas and passions, and even with new educational experiences, skills and paths in life. They can help people to find new parts of themselves, to find new limits and new abilities.

On the soccer field, I have played with teammates and competitors from all walks of life, and the reality for many is that the traditional educational pathways often fall short. Nowhere is this gap more noticeable than in mathematical subject areas. The problem is not simply that most students fail to master mathematical subjects, or even that they do not have a basic understanding of core concepts. It goes even further. Many students have an aversion to the idea of mathematics.

Playing alongside so many such students helped me to think of an idea to use our shared love of sports to inspire a love of math. I realized, with the help of some sports-business mentors, that maybe I had a unique perspective that could really leverage my love for sports to bring something of value to the world.

During the past several years of school, I have become fascinated by the rapidly evolving world of edutainment — the explosive movement in the educational world involving trends like gamification that promise to make segments of traditional education more engaging and more effective. The phrase “collateral learning” has always stuck with me — the notion that learning material should be designed to be so engaging that actual learning is just a pleasant side effect.

About a year ago, I set out to produce a short video series that uses sports references, concepts and examples to carry a student through the key ideas in a semester-long introductory high school statistics course.

This was a very natural starting point because I’ve always seen statistics as the most critical mathematical tool — it can be a powerful driver that informs and shapes the decisions we make in every aspect of our lives. This would not simply be a standard statistics course with sports examples bolted on as an afterthought. We really wanted to have the series born from a love of sports and designed for the sports-lover to show them that so many of these ideas and concepts were already part of their everyday vernacular.

I’m talking about everything from averages and normal distributions to best-fit lines and standard deviations. Whether we know it or not, we speak in these terms when debating with our friends, predicting outcomes for games and rating

our favorite players. I always felt that helping someone realize that could be a powerful vehicle for inspiring a wider interest in those particular concepts, and possibly even make them more engaged and successful math students.

The Parabolic Motion of a Perfect Spiral

I reached out to The Michelson Twenty Million Minds, an educationally minded foundation that works to improve access and affordability to higher education, where I had interned working on openly licensed learning materials for underserved populations. With its support and seed funding, we began to recruit onscreen talent and start production of the series. Styled as a parody of ESPN's "SportsCenter," "StatsCenter" covers some of the most dry and daunting topics in what we hope will be a transformative way for so many students with the unrealized potential to excel in these subject areas. The entire series, which will go live in early 2016, will be accessible through www.20mm.org.

This initiative is the flagship project in what I hope will be a portfolio of math-learning programs. Already, I hope that the positive impact of this first series can create the momentum needed for a series on sports and physics — examining the parabolic motion of a perfect spiral or the conservation of momentum in a body-check in hockey. I am also working with 20MM to support another more established organization called FreshLearn, which is building an app that uses real-time fantasy basketball data to build a mobile game for elementary school students.

The way in which we learn and educate ourselves has changed so rapidly. It feels more like a revolution than simply an evolution. Students will perhaps always go to a designated place to learn, but more and more it feels like learning is also going to meet students where they already exist — in places that have already captured their interest and passion. The court, rink, pitch and field are great places to start the education conversation and take learning to new heights.