

Making the Connection:

Linking Academic Achievement to Policies to Promote Physical Activity



As the global economy grows, the U.S. education system is struggling to prepare our children for the changing workforce. According to the National Center for Education Statistics, the average reading scores of 17-year-olds in the United States did not change significantly between 1971 and 2008.^{1,2,3} Yet many of our international peers are performing markedly better. Once regarded as the best educated nation in the world, the United States now ranks 25th of 34 industrialized nations in mathematics, 17th in science and 14th in reading literacy, according to the 2009 Program for International School Assessment (PISA) report.^{4,5,6} In addition, nearly 1.3 million students drop out of U.S. high schools each year.⁷ This means that about 7,000 young people leave the educational system each day without adequate preparation to compete in the global economy.⁸ Experts agree that our students' academic performance and workforce readiness have serious implications for U.S. global economic competitiveness.^{9,10,11}



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Among various education reform options, policy-makers have not typically considered healthy eating and physical activity as one important strategy for strengthening student academic performance. One exception is the recent passage of the Healthy, Hunger-Free Kids Act of 2010 (S.3307), which, among other things, requires states and local governments to adhere to stronger nutrition standards in schools.¹² However, there are no corresponding federal regulations that require physical activity in schools. **By making the connection between physical activity policies and positive academic outcomes, policy-makers can enact win-win solutions that help enhance students' academic performance while improving their overall health.**

Making the Connection

Overwhelming evidence links physical activity to improvements in student performance, including grades and standardized test scores.¹³⁻¹⁶ Yet, schools often fail to promote policies that ensure children and adolescents have the 60 or more minutes of daily physical activity recommended by the 2008 Physical Activities Guidelines for Americans.¹⁷ In fact, less than half of high school students meet their quota for recommended levels of daily physical activity, and fewer than 4 percent of elementary schools provide daily physical education to all students for the full school year.^{18,19} These trends are especially discouraging given that childhood obesity rates in the United States have dramatically increased during the last 40 years, and students' academic performance has failed to improve in any significant manner.^{20,21}

The link between physical activity and academic achievement appears time and time again in research. A 2007 study found that children who perform better on physical capacity tests are more likely to receive higher reading and math scores, even when the added time for physical activity takes away from time in the classroom.²² **Students who spend more time in physical education or other school-based physical activity can improve scores on standardized tests even if they spend less time in the classroom.**²³ Furthermore, research has found that participation in extracurricular physical activity is associated with decreased high school dropout rates.²⁴

There also is evidence that intensive physical activity programs in schools can improve cognitive skills and attitudes, including concentration, attention and classroom behavior.²⁵ Research shows that 15 to 30 minutes of daily physical activity can improve academic focus and classroom behavior in all grades.²⁶ Some studies suggest that classroom breaks for physical activities increase student alertness, attendance and concentration in class.²⁷ Additionally, physical activity programs increase self-esteem and decrease anxiety and stress levels among some young people, further enhancing student performance.²⁸

Schools often cite budget and time constraints as primary reasons for reducing for physical education or physical activity.²⁹ Yet many schools have been able to incorporate physical activity into the school day while staying within their budget.³⁰ **For example, the Michigan Department of Education was able to develop an efficient and cost-effective physical activity program for elementary schools, called Brain Breaks. The program integrated exercise and other activities into curricula or during classroom breaks.**³¹

In light of what research tells us about the value of regular physical activity, schools that eliminate recess, physical education and other forms of physical activity may be missing opportunities to increase students' academic performance.

Policy Recommendations

While each student is unique with different fitness needs, all students can benefit from meaningful access to regular physical activity. It is critical that policy-makers consider the importance of physical activity for young people when addressing issues concerning academic performance by:

Improving the quality and amount of physical education and physical activity in schools.

Policy-makers can facilitate increased cognition and attention in the classroom by supporting measures that:

- Require at least 30 minutes of quality physical activity, daily, in schools;
- Include physical education as a core requirement in curriculum;
- Ensure certified teachers lead physical education classes;
- Adopt high-quality, national standards for physical education courses and teachers (such as those from the National Association for Sport and Physical Education or American Heart Association);
- Increase extracurricular sport offerings; and
- Provide sufficient funding to schools for physical education courses, the construction and maintenance of gymnasiums, playgrounds and fields, and necessary supplies and equipment.

Providing opportunities for students to engage in physical activity outside of classroom time.

Policy-makers can enhance academic performance by supporting measures that:

- Enact walk-to-school and **Safe Routes To School (SRTS)** programs;
- Provide adequate funding and proper infrastructure for SRTS programs;
- Help communities apply for SRTS funding with state departments of transportation;
- Generate additional revenue to expand SRTS programs, such as programs to generate funds by offering specialty license plates;
- Support efforts to develop recreation areas such as parks and community centers, as well as outdoor recreation areas which can be funded through the federal Land and Water Conservation Fund State Assistance Program;³²
- Facilitate joint-use agreements between municipalities and educational institutions to community members to use available facilities for physical activity; and
- Adopt policies to address liability issues that might block implementation of joint-use agreements, when necessary.^{33,34,35}

Safe Routes to School (SRTS) is a growing movement to get more children walking and bicycling to school and to make it safer and more convenient to do so. Programs combine the five Es of SRTS—evaluation, education, encouragement, engineering and enforcement—and are typically led by parents, teachers, students, elected officials, government agencies and community members.

Endnotes

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