

Schools find active kids make smarter students

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- Updated: April 23, 2012 - 9:57 AM

Local results echo a growing body of research showing a connection between physical activity and academic performance.

When students at Meadowview Elementary in Farmington needed to improve their reading scores last fall, they were turned over to physical education teacher Joe McCarthy.

Each morning for months, McCarthy had the students spend 15 minutes running or shuttling from side to side in the gym. It wasn't any type of punishment, but part of a growing trend in education that focuses on increased physical activity to improve learning.

The students were selected based on their scores on fall state assessments. When the kids took the tests again earlier this year, after McCarthy's exercise regimen, they showed the greatest improvement of any students at Meadowview, double the school average, McCarthy said.

"And all we did was move more," McCarthy said.

Educators say there is a growing body of research showing that physical activity -- even something as subtle as chewing gum -- helps not only a child's health but also a child's ability to learn because of increased blood and oxygen flow and the creation of new brain cells.

"It's more than a theory. It's a well-established fact," said Jack Olwell, incoming president of the Minnesota Association for Health, Physical Education and Dance, the group representing the state's thousands of physical education teachers. "The more active you are, the more brain cells you create."

The Centers for Disease Control and Prevention (CDC) issued a paper in 2010 urging more physical activity for students because of the health and academic benefits.

"There is substantial evidence that physical activity can help improve academic achievement, including grades and standardized test scores," the CDC report concluded. Studies involving millions of students in California and Texas demonstrated the connection. Researchers from Harvard and the University of Illinois also have shown how scores and learning improved with more physical activity.

"If you really want to increase your test scores you have to get off your seat and you have to get on your feet," Olwell said. "You can turn it around in a year. You can turn it around quicker than that. If you stand up -- just stand up -- you improve your brain activity by 8 percent."

Pitching Physical Education

McCarthy and Olwell are pushing at the state and national level for more P.E. time in schools, and to make physical education a core requirement. There is no state minimum for physical education instruction in Minnesota schools, although most spend about 15 minutes a day two or three times a week. McCarthy and Olwell would like to make it daily and increase the duration.

"The hard part is changing the mentality," said McCarthy, who last week was nominated to be the state elementary P.E. teacher of the year.

At Akin Road Elementary, another Farmington school, teacher Anne Shadrick has her third-graders chew gum, jog in place or do calisthenics before tests or as part of their classroom routine.

Shadrick and other Akin Road teachers also use Spooner Boards -- curved skateboards without the wheels -- on which students balance while reading or doing math problems.

Shadrick said her students are testing higher than the state average. The scores keep going up, she said, the longer the kids are involved in the increased physical activity.

"It's not just moving," Shadrick said, "you're actually studying reading or math when you are moving. It makes the academic learning far more efficient. ... I've seen incredible leaps with my students."

One student, Alex Sellner, has gone from being in special reading and tutoring programs to being tested for placement in a gifted reading program, Shadrick said.

"It's shocking to me," said Bob Sellner, Alex's father. "His test scores went up dramatically. His reading has never been this good. Whatever [Shadrick is] doing, it's working."

Role Models

Nowhere is it working better than at Meadowview Elementary, where McCarthy has transformed the school culture the past few years.

Farmington is modeling its work after that of Naperville Central High near Chicago, which has one of the country's lowest obesity rates.

In 1999, a few years after starting an emphasis on physical education, Naperville students were tested and ranked sixth in math and first in science -- in the world.

Today, students there take yoga classes, read while riding stationary bikes and wear arm monitors to track heart rates.

"The academics was a byproduct," said Paul Zientarski, the former P.E. chairman at Naperville credited with turning the culture around. "The more kids move, the more they learn. Exercise really prepares the brain for learning."

Building on that premise, McCarthy has his entire school do calisthenics before classes. More than 60 percent of the 700 students also choose to participate in a running club during lunch.

Hundreds more are part of the Century Club, an after-school program in which kids and parents track students' physical activity, whether it's walking, playing sports or doing chores at home. The Century Club is part of the course grade for P.E.

Meadowview, meanwhile, is in the top 3 percent of schools in Minnesota for academic performance based on the state assessment tests, McCarthy said.

The school is a finalist for a \$25,000 regional prize for being a leader in developing physical fitness curriculum and a possible finalist for a \$100,000 national prize.

McCarthy is also working with researchers from Tufts University in Massachusetts, who are studying the academic benefits of exercise.

"It's really clear to us that there's a connection between body and mind," said Meadowview principal Jon Reid. "The parents are happy. The kids are running and nobody's telling them to."

Ulla Tervo-Desnick, a St. Paul teacher and a native of Finland, where many of the same methodologies are traditional, said Farmington is ahead of the curve when it comes to combining academics and exercise.

"I think they have thought it through," said Tervo-Desnick, who teams with Shadrick to conduct presentations around the metro on active classrooms and physical activity for kids. "They are way ahead."