

Fit to learn

How to build a healthier, smarter student

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Are physically active kids better learners? This is Part 2 of The Globe's series on children's fitness and education. Read Part 1 [here](#).

With child obesity a growing national problem, it's becoming apparent that gym class alone is not providing enough physical activity.

Just 7 per cent of school-aged children get the recommended 60 minutes of daily exercise, and more than one in four is overweight or obese, according to Statistics Canada. The problem is deadly serious. A recent study in the New England Journal of Medicine suggests this generation may be the first in centuries to have shorter life expectancies than their parents.

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Fit to Learn

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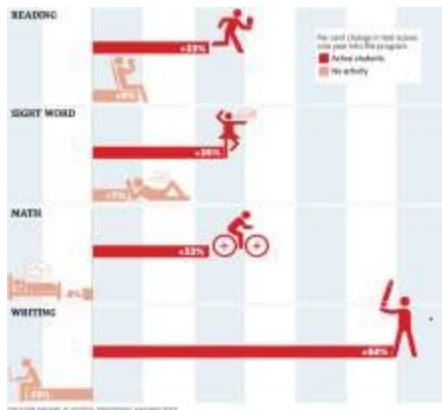
Poll

[Should gym class be mandatory?](#)

- Yes
- No

[Results & past polls](#)

[Physical education should be returned to the school curriculum every day to ensure all kids are getting the mandatory exercise amounts each day.—A reader responds to our poll on student health. Click here to vote](#)



Infographic

[Exercise accelerates academic performance](#)

Decades of rope climbing, embarrassing dodgeball injuries and military drills instilled a lingering resentment of physical education. However, the backlash – gym classes where competition is eschewed, no one breaks a sweat and everybody gets an A – has been equally problematic.

Mark Tremblay, an obesity and activity researcher at Children’s Hospital of Eastern Ontario in Ottawa, points to his son’s Grade 11 report card as evidence. Ben got an 88 in outdoor education. The lowest mark in the class was 87. The highest mark was 89.

In the comments section of his report, Ben’s teacher noted that he “participates in all activities and shows an interest.”

“We don’t deserve to be taken seriously when that’s the way it’s done,” Dr. Tremblay said.

Research also shows that as well as the obvious health benefits, physical activity is linked to academic success. Texas introduced mandatory physical-fitness evaluations for students in Grades 3 through 12 in 2007, and a study published in 2010 found that the fittest schools performed slightly better on standardized academic tests, even after accounting for socio-economic and other confounding factors.

Canadian schools are just beginning to track the effects of physical activity on learning. Since 2008, City Park Collegiate in Saskatoon has tracked the academic performance of at-risk children involved in a regular cardio exercise program – 20 minutes, three times a week – and found startling results: a jump of 23 per cent in math scores, and a 60-per-cent improvement in reading scores.

It's a model that is being adapted elsewhere in Saskatchewan at some federally run reserve schools and in other public schools in Ontario.

“When I started this program, it was really a way to help these special-needs students calm down, focus their energy and just a way to get them more ready to study,” teacher Allison Cameron said. “So exercise definitely helped with that, but then I saw it was actually helping with their learning as well. It was quite amazing.”

School programs that are making a difference:

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A.C.E.

Location: Camilla Road Senior Public School, Mississauga, Ont.

Launched: 2010

Target demographic: Grade 7 and 8 students

The program: Students spend at least 30 minutes a day exercising on stationary bikes, doing cardio workouts, resistance and strength training and, depending on the weather, they run outside before buckling down for class. Students also learn in-depth about the human body and nutrition. Most of the equipment was donated or acquired through fundraising with minimal cost to the school board.

The results: Students are less likely to be sent down to the office or act out in class; grades are up, according to teachers, and students say they feel more energized and ready to learn.

Why students love it: “I feel like I remember stuff better, especially in the morning. Before I wouldn't really wake up until much later in the day. But when you're running around first thing in the morning, it's kind of hard to not be fully alert. It's made me a better student.” – Stephaun Fung, Grade 8

Why teachers endorse it: “My generation used to walk to school. But most of these kids get bussed in and live around here in these apartment buildings, so where are they supposed to get that exercise? How are they supposed to get rid of all that pent-up energy? So, yes, it does cut into the teaching time but instead of wasting time getting the class to focus, they're ready to go.” – A.C.E. teacher Andrew Orphanos

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Movement Matters

Location: City Park Collegiate, Saskatoon

Launched: 2008

Target demographic: At-risk and special-needs students from Grade 8 to 10

The program: Three times a week, students replace 20 minutes of Language Arts class time with 20 minutes of cardiovascular exercise. The key is to elevate students' heart rate to 65 per cent of their maximum and then immediately move next to a learning activity.

The results: Math scores jumped by 23 per cent compared to falling 2 per cent for those who did no gym activity. Writing scores were up 60 per cent and reading 23 per cent, compared to falling 13 per cent and increasing only 9 per cent for those who did not participate. Special-education teacher Allison Cameron said her special-needs students were also less likely to act out in class and overweight children were shedding pounds.

Why students love it: "I have ADHD and would get really overwhelmed in class sometimes. I would also get bullied or called names because of my weight and when that happens, it's really hard to care about school. I was self-conscious. I just wanted to stop going to school. Since I started this program, I've lost 10 pounds. If I feel like I just can't concentrate, I just jump on the treadmill and the bike or go on the rowing machine. It makes it easier to learn." – Michael Boylan, Grade 8

Why teachers endorse it: "Initially there was some resistance from the school board that the program was taking too much curricular time. But just look at the results. Those students who don't get the exercise are not getting the same good grades. It's popular because it gets results and makes it easier for us to teach." – special-education teacher Allison Cameron

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Streetfront Alternative Program

Location: Britannia Secondary School, Vancouver

Launched: 1977, with marathon training introduced in 2002

Target demographic: At-risk youth from Grade 8 to 10

The program: Students at risk of dropping out devote 40 per cent of their school day to vigorous physical activity, including hiking, snowboarding and long-distance running. The other half is devoted to core academics.

Three days a week, teacher Trevor Stokes leads students on a 10-kilometre run through Vancouver's east side. Since 2002, students have completed more than 100 marathons, a feat their teachers says helps them learn the value of hard work and perseverance.

The results: Earlier this month, nine of the program's 22 students completed the BMO Vancouver marathon, and two more ran the half-marathon. Since 2002, about 85 per cent of the students who have completed marathons have also graduated high school.

Why students love it: "I was a little punk kid and Streetfront made me better. It flips everything – you want to run, be healthy, do good. It just cleans you up." – Jordan Braun, Grade 10

Why teachers endorse it: "Every single kid could turn around and say, 'Screw you, I don't want to run a marathon,' but every single kids shows up. Sometimes they get a little bit stoked on the idea of pushing themselves. We try to encourage that. ... We are turning them into kids who want to come to school." – teacher Trevor Stokes

