School Health, Sports Medicine/Physical Fitness

Study: Incorporating exercise into academic lessons boosts test scores
by Melissa Jenco, News Content Editor

Students earned higher test scores in math and spelling after exercise was incorporated into their lessons for two years, a new study found.

"These findings suggest physically active academic lessons should be part of the school curriculum because it is an innovative and effective way for teachers to improve children's academic achievement," researchers said in the study "Physically Active Math and Language Lessons Improve Academic Achievement: A Cluster RCT" (Mullender-Wijnsma MJ, et al. Pediatrics. Feb. 24, 2016, http://pediatrics.aappublications.org/content/early/2016/02/22/peds.2015-2743.

Previous studies found that children's engagement and functioning levels improved shortly after exercising, so the team set out to see if prolonged periods of physical activity would have similar effects on reading, spelling and math performance. They developed math and language lessons that incorporated moderate to vigorous exercise and implemented them into second- and third-grade classrooms in the Netherlands. For example, children learning to multiply two times four would jump on a spot eight times when solving the problem.

Children in the intervention group took part in these lessons three times a week, 22 weeks a year for two years. Meanwhile, a control group used traditional sedentary lessons with the same amount of instruction time. Achievement was measured before the study and after the first and second years.

After the first year, there were no significant effects on math speed and spelling test scores. However, after year two, physically active students gained at least four months more learning than the control group, according to the study.

In general math, student performance improved more than the control group in each year with a total of four months of gains after two years. There were no significant differences in the two groups' reading scores, which researchers said may have been due to the content of the lessons or the tests.

Gains in math and spelling may be attributable in part to physical activity engaging the brain, according to the study.

"It is also possible that the innovative teaching method may be effective because brain and body work in conjunction and because our cognitive knowledge is rooted in bodily awareness," researchers said.

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