



## Exercise Linked To Higher Test Scores

Source: The Age, Caroline Milburn October 10, 2011



Dale Stevenson, Bluearth Coach and Commonwealth Games bronze medallist, doing PE with schoolchildren. *Photo: Rodger Cummins*

### **A landmark study shows that physically active primary students perform better academically.**

PRIMARY school students who exercise regularly are more likely to have higher NAPLAN test scores in numeracy and writing, according to a landmark study.

The strong link between improved academic performance and physical exercise is revealed in research by Professor Richard Telford, of the Australian National University's medical school.



Professor Richard Telford ANU

Primary schools with the top NAPLAN scores also have the highest level of physical activity among their students, including participation in after-school sport, according to a study by Professor Telford to be published in March.

Another study shows children who are taught physical education by a specialist PE teacher have much higher NAPLAN test results in numeracy and writing than students whose PE lessons are taught by generalist classroom teachers in primary schools.

The specialist-taught group also had lower increases in body fat growth over two years, according to the second Telford study, published last month in the *American Journal of Public Health*.

"These findings are strong evidence for policymakers that specialist physical education in schools is not just important from the perspective of preventative medicine but it is also associated with improving the academic development of children," says Professor Telford, who is worried that an overcrowded curriculum and inadequate teacher training is hampering physical education in primary schools.

"Kids need to become more physically active because of increasing trends for children and adults to suffer from chronic illnesses such as type 2 diabetes and heart disease."

Children in the specialist PE lessons spent more time on fitness-related activities, including strength, balance, flexibility and group work. Lessons run by classroom teachers mostly used walks, runs and traditional games.

Australian primary school students are expected to get about 150 minutes per week of physical education lessons. But specialist physical education teachers are uncommon in primary schools, especially in the government sector.

Professor Telford says the findings about the academic benefit of specialist PE teachers are supported by neurological research emerging from Germany and the US over the past 10 years. The use of brain imaging has found that exercise, especially fitness activities that involve hand-eye co-ordination, can improve brain function.

"We're now realising that there's a mutual development process between the brain and other tissues like muscles," Professor Telford says.

"This mutual process seems even more evident in children. So if children are not exercising they may not have the optimum environment for growth of the body and brain."

His other study showing the link between primary schools with top NAPLAN results and high levels of physical activity among students will be published next year in the journal *Pediatric Exercise Science*.

Both studies are part of a longitudinal research project known as the Lifestyle of Our Kids (LOOK), which is examining the physical and psychological health of 800 students at 30 outer suburban government primary schools in the ACT. The schools' student populations are a representative sample of Australia's socio-economic mix.

Professor Telford, the LOOK project's research director, has strong ties to sport at the elite level. He played football with Collingwood and Fitzroy in the 1960s, won the Liston Trophy for best and fairest player in the Victorian Football Association when playing for Preston and was later appointed the Australian Institute of Sport's first sports medicine director.

The visiting PE specialists who took part in the LOOK study's analysis are from the Bluearth Foundation. The charity sends coaches into schools nationwide to run physical education sessions and train teachers.

It was established in 2000 by a Melbourne computer software businessman and philanthropist, Malcolm Freake, to encourage primary students to become more active, especially in schools without a specialist physical education teacher.

More than 800 schools have used Bluearth's services, with more than 1100 teachers accredited to deliver its specialist physical education programs.

Helen Berry, the charity's chief executive officer, says she isn't surprised by the LOOK study's findings. "We've been hearing anecdotally for years from teachers about improvements in the classroom from students being involved in the Bluearth program. Teachers tell us it's enabled kids to concentrate better and work better in groups.

"If we can have an effect early in a person's life, then that can create a lifelong love of physical activity."

A Bluearth survey of 3000 teachers in 500 schools involved in the program found 91 per cent of teachers reported the physical activity sessions had improved their students' behaviour and social skills. Ninety-eight per cent noticed a positive impact in classroom work, with students more willing to listen and co-operate in teams. Eighty-nine per cent of teachers reported improvements in student self-confidence.