

New research to test ways of improving learning in schools

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Two new trials led by Oxford University will investigate whether teenagers would do better in their exams if they could sleep in and start school later, and whether physical fitness can improve academic achievement.

The research is part of a multi-million pound programme, funded by the Wellcome Trust and the Education Endowment Foundation, to investigate a variety of ways neuroscience might improve teaching and learning in the UK.

Thousands of pupils across England will take part in a series of [randomised controlled trials](#) with the aim of providing more robust evidence about how neuroscience relates to learning and support teachers and schools keen to use the science.

Professor Russell Foster, Director of the Oxford University Sleep and Circadian Neuroscience Institute, and Professor Colin Espie, Professor of Sleep Medicine, will lead a trial of later school start times, along with a [sleep](#) education programme, to assess their impact on teenagers' educational achievement.

Professor Foster said: 'Recent advances in our understanding of the neuroscience of sleep has shown that the body clock of teenagers is delayed. This biology, along with the impact of social media and other sociocultural influences, delays bed and wake times and greatly shortens sleep. Our project will be the first large-scale randomised control trial to explore whether a later start to the school day, along with educational programs regarding the importance of sleep, will have a positive impact upon both academic performance and overall health in the teenage population.'

The project will involve around 31,800 pupils in Years 10 and 11 at 106 secondary schools around the country for a period of two years. Schools will be randomly allocated to groups to test the effect of moving start times to 10am and provision of sleep education sessions on the students' GCSE grades.

In another study, Professor Heidi Johansen-Berg from the University of Oxford will lead a trial to look at the effect of medium-to-high cardiovascular activity on academic attainment, using brain imaging to investigate the correlation between them.

It will involve around 10,000 year 8 pupils in schools in Oxfordshire.

Professor Johansen-Berg said: 'Children are living increasingly sedentary lives and there is considerable scope for increasing their activity levels. We all know that exercise is good for the body, but research suggests that it's also good for the brain. We therefore think that making PE lessons more active could boost subsequent lesson performance and academic outcomes over a longer time, but the only way to know for sure is to test the idea. I'm looking forward to working with schools to find out more.'

Provided by Oxford University

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