



Empowering teachers with the science of learning

Neuromyths and misinterpretations of how students learn are widespread, with many schools wasting time and money on teaching techniques that have no proven impact.

Science of learning research should be embedded into teacher training and continuing professional development (CPD) to improve teaching and student outcomes.

Wellcome believes that all teachers should participate in high-quality CPD every year, based on the best available evidence.

Enabling teachers to ask researchers questions

The Science of Learning Zone is a six-month online engagement activity that allows teachers to ask questions and engage in discussions with psychologists and neuroscientists. Building on a successful pilot conducted in 2015, we've now funded the scaled-up version, split into fortnightly topics with a live chat every week.

What teachers have asked researchers:

- 1) What's the evidence on how to motivate students and build resilience in the classroom?
- 2) Are colourful and vibrant displays on the walls in classrooms useful or distracting?
- 3) What are the effects of caffeinated drinks on student learning?
- 4) Are boys' and girls' brains different?



Teacher podcasts

The Learning Scientists are a group of cognitive psychologists interested in the science of learning. We've funded them to produce podcasts and hold Facebook Live discussions on science of learning topics. We hope resources in these formats will make it easier for busy teachers to gain access to relevant research on learning.



Initial teacher education

We've worked with Bath Spa University and the University of Bristol to develop science of learning modules for primary and secondary initial teacher education (ITE). We're hoping this early intervention in teachers' education will be effective in shaping how they conceptualise learning, and therefore how they construct their practice. Resources are being developed and tested with trainee teachers this year, and the materials produced will be openly available to other ITE providers by the end of 2018.



Continuing (online) professional development

In partnership with the National STEM Learning Centre (NSLC), we're supporting more formal professional development for teachers. Plugging an important gap, the NSLC is creating a massive open online course (MOOC) on the science of learning. To give the course a strong theoretical foundation, we've funded Professor Paul Howard-Jones to provide expertise on neuroscience and Professor Tim Jay on psychology. The course aims to improve teachers' understanding of learning and behaviour in their classes and, therefore, have an impact on their practice and improve their approach. The course launches on 14 May 2018.



Teachers doing research

With the Education Development Trust, we're supporting teachers to conduct their own randomised controlled trials to test interventions grounded in science of learning research in their schools. We're giving teachers resources and training days to help them understand the existing research base and design and evaluate their own interventions.

