

Speech: Nick Gibb: the importance of an evidence-informed profession

It is a pleasure to be at Buckingham University again, an institution with established values, an emphasis on traditional methods and a determination to influence other institutions.

It is important that the country's most prestigious academic intuitions are engaged in advancing our understanding of education and ensuring the next generation of teachers are endowed with high levels of subject knowledge and evidence of best teaching practice.

I recently [spoke at the Education World Forum](#) in London, which is a gathering of education ministers from around the world. I spoke about the importance of evidence in education and how experts needed to embrace that evidence rather than the comfort of prevailing orthodoxies. Just as with decisions made by teachers in their classrooms, advice given by education experts should be evidence-informed.

Teaching is a deceptively complex art. Every adult in the country has been to school and consequently, everyone has a view of what good teaching looks like. Everyone has a favourite teacher from school. No doubt, some are here today because of an inspirational teacher.

I will always remember Miss Weston from Hornchurch Infant School, my first ever teacher. She impressed upon us all, at the tender age of 5, the importance of standing up for what is right. I guess that's why I went into politics and why I'm standing here today.

And the very best teachers make their craft look easy. To the untrained eye, the underlying complexity and difficulty of teaching is easily missed. To the uninitiated, the wealth of experience and expertise that goes into constructing examples; the moment by moment decision making necessary for successfully managing a classroom; and the intellectual intensity of teaching, is difficult to appreciate.

But for all of this additional difficulty what makes teaching most challenging is its central component; namely, changing what is happening in your pupils' minds and ensuring knowledge and important concepts are retained in their long-term memory. Whether teaching pupils their times tables, explaining the process of longshore drift or teaching pupils to distinguish a between a crotchet and a quaver, teachers are presenting pupils with information that they hope will be transferred to their long-term memory.

Professor Dan Willingham – a cognitive scientist who has greatly influenced my thinking – said that [“memory is the residue of thought”](#) and that it is this accumulation of factual knowledge in long-term memory that enables people to be creative and critical thinkers.

Growing evidence is being gathered by cognitive scientists, and, increasingly, we understand how to maximise what pupils learn and how teachers improve retention of knowledge. We understand that certain classroom activities contain so much distracting information that [pupils experience cognitive overload](#) and therefore information is less likely to be retained. In the words of Professor Willingham:

People are naturally curious, but we are not naturally good thinkers; unless the cognitive conditions are right, we will avoid thinking.

In his excellent '[Why don't students like school](#)' he cites a lesson he observed where a teacher focused so much on making the subject matter relevant to her pupils, that none of them learnt the required knowledge. In a lesson on the Underground Railroad – the secret network of routes and safe houses used by African American slaves to escape to Free States – the teacher had pupils bake biscuits similar to those used for sustenance by escaping slaves. Whilst pupils were clearly engaged in the lesson and were enjoying making biscuits, they were not thinking about the Underground Railroad and therefore were not going to remember the key facts about the event.

Professor Willingham concluded from his observation that pupils had spent 40 seconds considering the relationship between the biscuits and slaves and 40 minutes thinking about making biscuits. It is not hard to imagine what pupils took from this lesson.

There are components of great teaching that cannot be gleaned from reading the evidence. Some of our most memorable teachers had a natural charisma that made their lessons particularly enjoyable. But, as Professor Willingham concludes:

The jokes, the stories and the warm manner all generate goodwill and get students to pay attention. But how do we make sure they think about meaning? That is where the second property of being a good teacher comes in – organising the ideas in a lesson plan in a coherent way so that students will understand and remember.

For a synopsis of the emerging evidence in cognitive science, I recommend Deans for Impact's '[The science of learning](#)'. This short document summarises some key findings from the field. It highlights some practical implications for the classroom and provides links to further reading. The importance of interleaved practice for long-term memory retention is covered, as is the importance of domain-specific knowledge for pupil success when problem solving. The document also debunks some of the common neuro-myths, clarifying that pupils do not have so-called 'learning styles', humans do not only use 10% of their brains and cognitive development does not progress in age-related stages as Piaget asserted.

Debunking the neuro-myths that surround teaching is an important endeavour as

unchecked they can pervade classrooms throughout the country, damaging educational achievement. A decade ago, the neuro-myth of Brain Gym was prevalent in England's schools. In schools afflicted by Brain Gym, pupils were instructed to activate their brains by rubbing so-called 'brain buttons', located in different areas of the body. By having pupils rub their clavicle, various regions of the brain would light up – so went the theory. In the oddest cases, pupils were instructed to slowly sip water in the hope that water would be absorbed into the brain via the roof of the mouth, thus hydrating the brain!

However biologically illiterate this practice may seem to us now, it demonstrates the importance of having a knowledgeable and research-informed profession inoculated from falling victim to this nonsense.

We live in an era of unrivalled technical and scientific enlightenment. But in England, in the 21st century, we have seen teachers taking into account the imagined learning styles of their pupils – such as visual, auditory and kinaesthetic – which is both a waste of effort and can have a negative effect on pupils, according to the Education Endowment Foundation. The EEF, which evaluates teaching interventions using randomised control trials, [concluded the following about learning styles](#):

Studies where teaching activities are targeted towards particular pupils based on an identified learning 'style' have not convincingly shown any major benefit, particularly for low attaining pupils. Impacts recorded are generally low or negative.

It can be particularly damaging for pupils to believe they have a particular learning style, as this can act to prevent pupils learning material that does not fit their supposed learning style. The EEF concluded that "it is particularly important not to label primary age pupils or for them to believe that their lack of success is due to their learning style."

And yet, there are teacher training institutions where learning styles remain on the initial teacher training curriculum.

Barak Rosenshine's ['Principles of instruction'](#) debunks another pervasive teaching myth; the myth of too much teacher-talk. I trust no one here has been told to be a "guide on the side, not a sage on the stage" by this university – an unevidenced trope designed to prevent teachers from spending time talking to their class.

Still today, I occasionally hear of schools and teacher training institutions where teachers are prohibited from addressing the class for more than 20% of the lesson, as if listening to a knowledgeable adult would harm the education of pupils.

The most effective teachers, according to Rosenshine's evaluation of the evidence, do not overwhelm their pupils by presenting too much new material at once. Instead, they intersperse explanations with directed questioning and multiple examples. Consequently, these teachers spend far more time at the

front of the classroom, as Rosenshine explains:

Teaching in small steps requires time and the more-effective teachers spent more time presenting new material and guiding student practice than did the less-effective teachers. In a study of mathematics instruction, the most-effective mathematics teachers spent about 23 minutes of a 40-minute period in lecture, demonstration, questioning and working examples. In contrast, the least-effective teachers only spent 11 minutes presenting new material.

Similarly, many teachers believe that pupils best retain knowledge if lessons are structured in such a way that they discover information for themselves. For many, it is a truism that the best means of teaching pupils is to allow them to discover.

Often, science classrooms are set up for pupils to behave like scientists. Pupils of history are expected to act like historians. It is commonly believed, contrary to what we increasingly understand about the differences between the brains of novices and experts, that by being given the opportunities to behave like historians or scientists, pupils will inevitably become better at science and history. It is not immediately obvious that this is not the case.

However, Richard Mayer's 2004 paper [‘Should there be a three-strikes rule against pure discovery learning?’](#) provides an excellent summary of the arguments against this point of view. Mayer's thesis is that “there is sufficient research evidence to make any reasonable person sceptical about the benefits of discovery learning.”

Concluding his article, he emphasises the importance of applying what we know about how the human brain works to teaching practice:

Thus, the contribution of psychology is to help move educational reform efforts from the fuzzy and unproductive world of educational ideology – which sometimes hides under the banner of various versions of constructivism – to the sharp and productive world of theory-based research on how people learn.

Teaching practice that encourages novice pupils to behave as if they are expert scientists or historians is an example of just this, education theory moving away from research on how people learn. It is hoped that by behaving like experts, pupils will develop the skills and strategies of experts.

Drawing on the work of Michael Polanyi, [Daisy Christodoulou, head of Assessment at Ark, explains](#) that experts spend “hours focussing their attention on tiny details, and learning to recognise differences that completely elude the casual observer. This is not achieved through discovery, but through direction. It is not achieved quickly, but through thousands of

hours of deliberate practice.”

And as Bransford, Brown and Cocking make clear in [‘How people learn: brain, mind, experience and school’](#), novices cannot behave like experts because their brains tackle problems in different ways:

Experts have acquired extensive knowledge that affects what they notice and how they organise, represent, and interpret information in their environment.

Hence, it is not by having pupils behave as if they are experts that will have the best chance of them developing into experts, but rather giving pupils a strong grounding in the knowledge they will need. This knowledge provides a mental framework that pupils can then use and apply to new and novel problems – eventually, after many years of study, allowing them to become scientists and historians in their own right.

Ensuring teachers of the future are equipped with an up-to-date understanding of the latest research and a desire to use evidence to inform their teaching practice is key to improving schools. We must give trainee-teachers a firm foundation of knowledge and a healthy dose of scepticism with which to deal with the next Brain Gym.

In conclusion: Teaching is difficult. It is hard work. It is both challenging and rewarding intellectually and emotionally. And for all of these reasons, it remains one of the most honourable and important professions you can choose. To all of you, thank you for choosing to be a teacher.

[Press release: Businesses set for lower bills](#)

Thousands of businesses across the country are set to benefit from falls in their business rates bills, figures released today (17 February 2017) show.

Communities Secretary Sajid Javid said this will give regional economies ‘the edge’ to drive growth for the country as a whole.

The revaluation of business rates, which will come into effect in April this year, will mean businesses across the country will get lower bills that accurately reflect changes in their local property market.

Figures show that nearly three-quarters of businesses across the country will see no change to their bills, or a reduction. For the small minority who will see an increase, there will be a system of transitional relief, to bring it in gradually over 5 years. This transitional relief is worth £3.6 billion,

and will mean increases in business rate bills will be phased in over the 5-year period. This relief is on top of increases in small business rate relief.

Latest figures released by the Department for Communities and Local Government show that this will benefit regions across the country, including the Northern Powerhouse and Midlands Engine. Bills across the northern regions are due to fall by 10% before inflation and transitional relief – a fall of £600 million a year – while businesses in the Midlands Engine will see their bills fall by an average 5% – a fall of £230 million a year.

This is on top of measures which mean that from this April, businesses will benefit from the biggest ever cut in business rates in England – worth £6.7 billion over the next 5 years. As a result, 600,000 businesses across the country will pay no business rates at all.

Communities Secretary Sajid Javid said:

Our regions have huge economic potential, and can be a catalyst to driving economic growth across the country.

The revaluation of business rates will help make sure bills are accurate, with nearly three-quarters of businesses seeing a fall, or no change. In fact, the generous reliefs we are introducing mean that 600,000 small businesses are paying no rates at all – something we're making permanent so they never pay these bills again.

And across the country, there's also a £3.6 billion scheme to support companies affected by the business rates revaluation.

These measures are on top of wider reforms to business rates, which will mean by 2020, councils will be able to keep 100% of all locally-raised taxes to help fund local services, which will mean a stronger incentive for councils to support and help local firms grow and prosper. While bills will be issued by councils, valuations will be conducted by the independent Valuation Office Agency, to avoid any conflict of interest.

In the last Parliament, the government intentionally changed the timetable of the revaluation from 2015 to 2017 to provide stability for businesses after the financial crash. Government-led efforts to boost the country's economy and encourage growth have now led to 900,000 more businesses operating now than in 2010, and the government believes it is now the right time to go ahead with updating the figures on which bills are based.

The revaluation will benefit large parts of the country, with three-quarters of businesses seeing no change, or a fall, in their business rate bills. They include:

- businesses in the South West seeing an average 6% fall in bills before inflation and transitional relief – a cut of £150 million a year

- businesses across the South East benefiting from an average 1% fall in business rates bills equivalent to £50 million a year
- businesses in the East of England benefiting from an average 7% per cent fall in business rates – equivalent to £180 million a year
- West Midlands businesses benefiting from an average 7% fall in business rates before inflation and transitional relief – equivalent to a fall of almost £170 million a year
- businesses in the East Midlands seeing an average 3% drop in business rates bills – equivalent to £60 million a year

The changes are fiscally-neutral, meaning no real increase in the amount of tax raised. Key cities seeing reductions in their business rate bills include:

Northern Powerhouse:

- Durham – an average 10% cut in bills
- Newcastle – an average 11% cut in bills
- Manchester – an average 3% cut in bills
- Liverpool – an average 7% cut in bills
- York – an average 6% cut in bills
- Leeds – an average 11% cut in bills
- Hull – an average 13% cut in bills
- Sheffield – an average 9% cut in bills

Midlands Engine:

- Birmingham – an average 6% cut in bills
- Coventry – an average 7% cut in bills
- Derby – an average 4% cut in bills

[News story: Business rates revaluation: the facts](#)

The next business rates revaluation takes effect from 1 April 2017

The government is regularly required to update the 'rateable values' of business properties in England to make sure that they are paying the right amount of rates.

Alongside this we're introducing the biggest ever cut in business rates – a £6.7 billion package over the next 5 years.

This is about making business rates fairer

The revaluation will make the system more accurate by ensuring business rates bills reflect the property market.

Nearly three-quarters of businesses will see no change or a fall in their bills from 1 April 2017 thanks to the business rates revaluation, with 600,000 businesses set to pay no business rates at all.

The government will not benefit financially from the revaluation – it is a revenue neutral process.

In addition, from April 2020 business rates will switch from being linked to the Retail Price Index (RPI) to the Consumer Price Index (CPI), saving businesses around £370 million in total from 2020-21.

The government is providing £3.6 billion directly to businesses to help with the revaluation

The transitional relief scheme will support ratepayers by capping and phasing in any rise in bills.

600,000 small business will pay no business rates at all

As part of the £6.7 billion package of business rates cuts over the next 5 years, the government has permanently doubled Small Business Rate Relief.

Eligible properties with a rateable value of £12,000 and below will receive 100% relief.

Eligible properties with a rateable value between £12,000 and £15,000 will also benefit from business rates relief, offering significant reductions on their business rates bills.

[News story: Advocate General appears in UKSC on behalf of the Home Secretary](#)

From:

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Advocate General appears in UK Supreme Court on behalf of the Home Secretary

On 15th and 16th of February 2017, the Advocate General for Scotland, Lord Keen of Elie QC represented the interests of the Secretary of State for the Home Department in the UK Supreme Court cases of R (on the application of Byndloss) (Appellant) v Secretary of State for the Home Department (Respondent) and R (on the application of Kiarie) (Appellant) v Secretary of State for the Home Department (Respondent). Both cases dealt with the issue of whether s.94B of the Nationality, Immigration and Asylum Act 2002 complies with the procedural and substantive protections under art.8 ECHR. You can find a link to the UK Supreme Court website for further details, and to watch a recording of the hearings by clicking [here](#)

[Press release: How to fish responsibly during Somerset's elver season](#)

With the 2017 elver season under way, the Environment Agency is reminding Somerset's elver fishermen to stay the right side of the law.

Eels are an endangered species and recognised by the Convention on International Trade in Endangered Species (CITES) as in need of protection. Fishing for elvers is allowed in England and Wales, but under strict conditions to ensure stocks are not over-exploited.

The elver season runs from 15 February – 25 May inclusive and is largely limited to the Rivers Parrett and Tone. There are approximately 200 licenced elver fishermen in Somerset who must register with the Environment Agency at the start of the season.

Sustainable fishing includes the capture of elvers for re-stocking in countries across Northern Europe where eel stocks have declined and cannot be replenished naturally.

All elver fishing in Somerset is done with hand held nets known as 'dip nets'. They are restricted in size to 1m long, 0.8m wide and 0.45m deep. Handle lengths should be no longer than 4m. Fishing from boats is prohibited and no other large nets or traps are allowed. As a further precaution, all nets must be tagged and fishermen have photographic ID.

Elvers are attracted to fresh water so to protect stocks, no fishing is permitted within 10m of any river obstruction, dam, inlet, outlet or fish pass that hinders the passage of elvers. A full list of rules can be found in the elver fishing bylaws.

Richard Dearnley for the Environment Agency said:

We recognise the majority of elver fishermen operate responsibly

and respect the law. We work closely with the police in detecting illegal fishing and, where we have evidence, won't hesitate to prosecute offenders.

Any illegal or suspicious activity can be reported to the Environment Agency or Crimestoppers. If you would like to report information on environmental crime anonymously, call 0800 551111.