

Towards a Twenty-First Century Education System

Cabinet War Room (11 February 2019)

[Personal introduction]

What I want to talk about this morning is one of the biggest challenges we face as a nation – how to create an education and training system that genuinely nurtures the talent we need for the future and creates a ladder of opportunity long and strong enough for each and every young person to climb.

This argument is too often characterised as one of polar opposites – between traditionalists and progressives – between knowledge and skills.

That is a false divide. The truth is that knowledge is only useful where individuals have the skills to interpret and communicate it, and skills are only useful where young people have a core knowledge to draw on.

Acceptance of this simple fact is now crucial so that we can begin to reshape education and support schools to become truly ‘knowledge engaged’. This means not focusing just on knowledge or just on skills but on the combination of those two critical factors.

To do this, first we need to redefine our view of the skills that employers consistently tell us they are looking for, like team working and problem solving. These are not ‘soft skills’ that detract from the development of knowledge, but rather the essential skills to manipulate and make use of it.

Second, now that we have raised the participation age, we must abandon GCSEs and move towards a holistic and far broader based baccalaureate at age 18.

Finally, we must give teachers back their autonomy in the classroom. We must give them the opportunity to work in partnership with local employers and community organisations to bring their curriculum alive with a rich mix of academic and work-life skills which will create a multi-skilled workforce for the future.

1. The triple threat to our economy

Barely a day goes by without a story in the news about skills shortages in one sector or another. They are a drain on our economy and on our society – real job vacancies that cannot be filled because employers are unable to find the right skilled individuals.

Latest research by the Department for Education itself showed that there were 226,000 skills shortage vacancies across the economy in 2017, two and half times as many as the 91,000 that existed in 2011. Yet the most recent figures from ONS showed that in the first quarter of 2018, there were 322,000 young people aged 16-24 who were NEET and unemployed.

Setting these two figures side by side provides the starkest illustration possible of the complete disconnect between our education system and the 21st century world of work.

The impact of skills shortages on our businesses is dramatic. The greatest concentrations of these vacancies are in some of our key infrastructure and growth industries – construction, utilities, transport, manufacturing and communication. They disproportionately affect the smaller businesses that are the backbone of the economy in my constituency and around the country. The Open University has estimated the cost at over £6.3 billion annually and growing.

There is a social justice deficit too. While businesses suffer from these skills shortages, hundreds of thousands of young people are faced with the despair of unemployment and unfulfilled job-seeking in a market to which their skills and education are simply not suited.

It is almost impossible to speak on any subject in 2019 without a mention of the 'B' word and there is no doubt Brexit has the potential to add significantly to this challenge. The Employer Skills Survey showed that 38% of businesses facing skills shortages tried to recruit non-UK nationals to fill the roles. Of these, 90% of firms had looked to recruit from the EU. If Brexit restricts migration into the UK, we will have to redouble our efforts to improve the skills system here in order to foster home grown talent.

Looking further ahead, my Committee has recently been examining the impact of the Fourth Industrial Revolution.

The number and nature of jobs are changing at an unprecedented rate. Driverless vehicles will automate road haulage and taxi operations, artificial intelligence will power medical diagnosis, big data will search hundreds of legal and insurance precedents in a heartbeat and 3D printing will be used to construct bridges and houses. In 2015 The Bank of England found that up to 15 million UK current jobs are at risk of automation. There are particular challenges for young people – PWC has estimated that 46% of jobs done by young men are at risk of automation.

The 'March of the Robots' and its impact on our economy and society is going to be huge. To complement our committee enquiry, the Government should establish a Royal Commission, headed up by the Chief Scientist, to examine the impact of the rise of the robots, artificial intelligence and automation. They should look at the effect on jobs particularly, and advise how we should respond to this challenge.

In Finland this is already happening with a programme called 'anticipate'.

So our education system faces a triple threat, which we must step up to address.

- 1) We must fill the large and widening skills shortages in the economy;
- 2) We must foster home-grown talent, and;
- 3) We must give young people the transferable skills and resilience they need for careers in a rapidly changing world.

2. The Ask from British Businesses

One thing has remained remarkably consistent during my conversations with business leaders in my constituency over many years. When I ask them what they are looking for in their future workforce, their answer is simple - individuals who are good communicators, excellent problem solvers, strong team players.

This certainly does not mean that knowledge is not important – it is. Every young person deserves to understand this country's rich cultural heritage, world history and the scientific principles that govern our daily lives.

But knowledge is not enough. It is essential that it is combined with the development of the key skills that employers are looking for. In the language of Ofsted's recent work in this area, we need schools to be *knowledge engaged*. The knowledge is not the end in itself – rather it is knowledge, understanding and the application of skills intertwined in the curriculum that creates rounded individuals.

The proof from employers is clear. In the Government's own Employer Perspectives Survey, less than half of employers said that academic qualifications alone were significant or critical when hiring, compared to almost two-thirds for relevant work experience. Similarly, in the CBI's annual education and skills survey, businesses made clear that the biggest drivers of young people's success are attitudes and aptitudes.

Similarly, the skills that employers are desperately looking for are not a secret. In fact, the resounding message from 87,000 businesses surveyed is that there are two key areas: first, technical and practical skills and second, inter-personal and problem-solving skills. This chimes with the latest figures from the OECD on adult skills, which place the UK 14th on literacy, 18th on numeracy and 10th on problem solving.

So the requirement from businesses is clear. What matters is not just factual recall. What matters is knowledge combined with technical skills and the timeless employability skills that are required for success in any industry.

3. The Response from Education Policy

A huge emphasis has been placed through performance measures like EBacc on knowledge in a narrow range of academic subjects.

While businesses emphasise the need for technical skills, EBacc has delivered a 57% reduction in Design and Technology GCSE entries since 2010. At the same time, the teaching of creative subjects needed to build broader communication and team-working skills have fallen by 20%.

Here it must be said that while the Gatsby Benchmarks are an excellent aspiration, the reality of their delivery leaves a huge amount to be desired. Under pressure to prioritise GCSE results, they risk becoming a box-ticking exercise in many schools. Recent evidence to the Select Committee clearly calls into question the effectiveness and value for money provided by the Careers and Enterprise Company, who are spraying money around like confetti with a wanton lack of strategic direction - they spent £200,000 on two conferences in 2017 and £900,000 on research with a lack of convincing data on hard outcomes and minimal oversight.

The crucial role of Further Education has also been largely overlooked. The sector has been subjected to decades of 'initiativitis' leaving it without a clear direction, while funding has been salami sliced year on year making their task almost impossible. Colleges must be recognised as having a key role in giving young people access to high quality technical education. They need to be seen as anchor institutions, collaborating closely with schools and Higher Education, as they are in Northern Ireland. And they should be properly funded – an issue I raised directly with the Chancellor ahead of last year's budget. I will continue to champion this too often unrecognised sector.

In the world of adult education, latest research from the Social Mobility Commission shows that 49% of adults from the lowest socio-economic group receive no training at all after leaving school, making it all the more important that we get education right at this early stage.

4. Beacons of hope

I very much welcome the recent announcements from Amanda Spielman beginning to establish a broader definition of success. As Luke Tryl, Ofsted's Director of Corporate Strategy, has said 'we have reached the limits of what data alone can tell us'.

Education policy needs to catch up to that vision.

In the meantime though, Edge has been working with a group of schools that are already bucking the trend in combining the teaching of knowledge and skill, preparing young people for life and work in the twenty-first century.

- School 21 in Stratford sends all of its Year 10 pupils out for half a day a week to work alongside real businesses on live projects, applying what they have learned in school and getting real time careers guidance while developing the employability skills businesses look for.
- XP School in Doncaster, who you will hear more from in our panel discussion, move beyond the restrictions of individual subjects to a holistic education taught through expeditions that challenge pupils and teachers alike. Their simple maths equation is one I wholeheartedly endorse – qualifications plus character growth plus beautiful work equals the best version of you.

In the North East, Edge are working with the LEP and with schools in Newcastle and North Tyneside to apply some of these transformational approaches and principles, already yielding strong results. We will hear more from Claire, Principal at Excelsior Academy in Newcastle, about this work shortly.

Most importantly, we know that these approaches work because there is clear evidence from other parts of the world. I recently met colleagues from Nashville, Tennessee, where this expansive approach to education was introduced a decade ago. They have experienced an increase of more than 25% in graduation rates, improvements in behaviour, attendance and most importantly in core subject attainment because young people can see the relevance of what they are learning. The bottom line is that this has added more than \$100m to the local economy.

5. Towards a Twenty-First Century Education System

The argument in this area between traditionalists and progressives is a false dichotomy, based on inflexibility and unwillingness to change and adapt. As I have said before, when the Opposition paint a picture in which the Government as butchers of our education system, I respond by saying that is simply wrong. We should be seen not as butchers but as Bakers.

We should follow the very sensible proposals of Lord Baker, former Education Secretary and Chair of Edge, in moving beyond the extremes of this debate to a sensible middle ground where the acquisition of knowledge can co-exist and thrive with the development of essential skills.

First, we must rewrite the way in which we see those skills. We should stop referring to them as ‘soft skills’ developed at the expense of knowledge. Rather they are the essential skills that employers are looking for and which will enable young people to interpret, manipulate and communicate their knowledge.

What skills do I mean? Well Edge’s *Joint Dialogue* research answers that question by bringing together data from leading surveys and focus groups with employers: problem solving, communication, self-management, teamwork, creativity, numeracy and digital skills, together with confidence and resilience.

Again I repeat that I fully support the need for every young person to be able to access through their schooling a working knowledge of our – indeed their – cultural capital, our history and our literature.

But it is also essential that we develop our next generation of engineers, entrepreneurs and designers. All young people should have access to the technical and creative subjects that will give them the skills that employers are looking for. We must move from knowledge-rich to knowledge-engaged. It is not enough for young people to emerge from school with a brain full of rote learned facts and figures. They need a core of knowledge but, just as importantly, the skills to interpret, adapt and communicate that knowledge in a variety of different situations.

This is perfectly possible, as Edge's own work in the North East is already showing. Young people in schools are gaining a knowledge of robotics by working with students at Newcastle University to use Micro:bits to solve real life problems in their school. At the same time, they are practicing team working and communication skills and getting exposure to possible future careers.

Students at Excelsior Academy have gained a real understanding of the history of the Jarrow March, a protest against unemployment and poverty in the 1930s, by recreating it and working with a local food bank to understand how these issues are impacting their community even today. They are developing knowledge about their community and history, whilst simultaneously learning how to apply it and how to become caring future citizens.

Through these kinds of highly engaging projects, teachers are able to work in partnership with local businesses and community organisations to truly bring the curriculum to life.

Second, we must remember that since 2015 all young people have been required to participate in some form of education and training up to 18. Yet GCSEs are still widely viewed as the same high stakes tests that they were when many young people finished their education at this age.

We must take the opportunity to fundamentally reimagine this phase of education, turning the high-stakes GCSEs that drive so much perverse behaviour in the system into a simple data-led 'progress check' at 16.

You may worry that this could negatively impact students who move institutions at 16, but some have questioned whether GCSEs in subjects like maths are a perfect indicator of real numeracy, and institutions like Colleges are already skilled in assessing needs on arrival to tailor their provision.

In their place, what we need is a true baccalaureate at 18. Just as the International Baccalaureate does in more than 149 countries, this should recognise academic and technical skills together with the young person's personal development. This would act as a genuine and trusted signal to employers and universities of a young person's rounded skills and abilities.

Schools would then be measured on two things – completion of the baccalaureate at 18 and the destinations of their pupils in the years after leaving, with apprenticeships explicitly counted as a gold standard destination.

Third, too many teachers are currently leaving the profession - analysis published at the end of last year showed that of 35,000 newly qualified teachers who had started teaching in London since 2010, more than 11,000 had already left.

The solution to this doesn't lie in more costly advertising for new recruits. The solution lies in building on the Secretary of State's recent retention strategy to return the profession to one that is attractive as a long-term career. Local teacher training colleges could give them a head start to that career, but then teachers should have more autonomy in their classrooms and more high quality CPD throughout their careers, connecting learning to real life.

Edge has piloted teacher externships, giving the opportunity for teachers to spend time in local businesses, understanding their workplace so that they can inject real life examples into their curriculum and provide relevant real world careers advice to their pupils. The evaluation of the pilot showed that 80% of teachers and 84% of students felt that the approach had given them a real insight into the world of work. This programme will expand in the north east during 2019.

Conclusion

These changes not only have the potential to transform the way in which young people learn and engage while in school. They also have the ability to equip young people to progress on to the full range of routes including T-Levels and Degree Apprenticeships.

This is not about an either - or. The acquisition of core knowledge is important. But dry rote learning for exams is not the way forward and GCSEs have had their day. Young people need the opportunity to develop that knowledge *and* the skills that they need for future employment through a broad and relevant curriculum that links explicitly to the real world and is assessed holistically.

I will leave you with a quote from Churchill himself, speaking at Harrow School in 1940, which is just as true today as we consider social justice in education:

‘When the war is won ... it must be one of our aims to work to establish a state of society where the advantage and privileges which hitherto have been enjoyed only by the few should be more widely shared by the many and the youth of the nation as a whole.’

Seventy nine years on we have still not established that state of society. Unless we do so, more and more generations will lose out needlessly making society and the nation poorer in every way.