BRINGING OUT THE BEST

How to transform education and unleash the potential of every child
The Times Education Commission was set up in June last year at the suggestion of Sir Anthony Seldon. Its aim was to examine Britain’s whole education system and consider its future in the light of the Covid-19 crisis, declining social mobility, new technology and the changing nature of work.

This year-long project has been chaired by the Times columnist Rachel Sylvester supported by a distinguished team of 22 commissioners with successful backgrounds in business, education, science, the arts and government.

We wanted the commission to be a catalyst for change. As we all know, the pandemic was a disaster for children and young people, and not just in terms of lost learning and damage to mental health. The closure of schools during lockdown deepened disparities and widened the attainment gap. Disadvantaged children fell further behind their better-off peers, state schools further behind independent schools, north further behind south.

But the flaws in our education system predate the pandemic. It has long been clear we are failing to produce the qualified, well-rounded students that employers need if the country is to succeed in a modern global economy. Low productivity, poor social mobility and a shortage of essential skills are holding Britain back.

The pandemic, by calling into question almost every aspect of the way things used to be, actually gave us a chance to take stock, to rethink the system from top to bottom, to look at what other countries do better or differently and to bring about fundamental change.

The commission is one of the broadest inquiries into education ever held in Britain and the first to look at the system from early years through to lifelong learning. It has heard expert evidence from former prime ministers, business leaders, educationists, artists, even an explorer. It has visited schools around the country and around the world. A summit held last month drew on the expert evidence given to the commission up to that point and the lessons of a business survey conducted by PwC.

It heard discussions that considered what skills need to be taught in schools to help to set children up for the working world and how business can help to fill in the skills gap. It looked at how the education system can best support social mobility and whether the present assessment system is still relevant: is it time to replace GCSEs with something that reflects today’s changing society? It also considered what the future could look like for education through developments in technology.

A special thank you to PwC, who have worked closely with the commission, conducting extensive research into the views of business leaders on what they feel about the education system and areas for improvement. I hope you find this report illuminating and thought-provoking. Education, put simply, should be at the heart of Britain’s future.
A single-point plan for education

A British Baccalaureate, offering broader academic and vocational qualifications at 18, with parity in funding per pupil in both routes, and a slimmed-down set of exams at 16 to bring out the best in every child.

1. A new cadre of Career Academies – elite technical and vocational sixth forms with close links to industry – mirroring the academic sixth forms that are being established and a new focus on creativity and entrepreneurship in education to unleash the economic potential of Britain.

2. An “electives premium” for all schools to be spent on activities including music, drama, dance and sport and a National Citizen Service experience for every pupil, with volunteering and outdoor pursuits to ensure that the co-curricular activities enjoyed by the most advantaged become available to all.

3. A British Baccalaureate, offering broader academic and vocational qualifications at 18, with parity in funding per pupil in both routes, and a slimmed-down set of exams at 16 to bring out the best in every child.

4. An army of undergraduate tutors earning credit towards their degrees.

5. A reformed Ofsted that works collaboratively.

6. A laptop or tablet for every child and a greater use of artificial intelligence in schools, colleges and universities to personalise learning, reduce teacher workload and prepare young people better for future employment.

7. Wellbeing should be at the heart of education, with a counsellor in every school and an annual wellbeing survey of pupils to encourage students once just as they study to build resilience rather than just support students once problems have arisen.

8. Bring out the best in teaching by enhancing its status and appeal with better career development, recognition every five years and a new category of consultant teachers, promoted within the classroom, as well as a new teaching apprenticeship.

9. A reformed Ofsted that works collaboratively.

10. Better training for teachers to identify children who have special educational needs, giving a greater focus on inclusion and put a duty on schools to remain accountable for the pupils they exclude to draw out the talent in every child.

11. New university campuses in fifty higher education “cold spots”, including satellite wings in further education colleges, improving pay and conditions for the FE sector and a transferrable credit system between universities and colleges to boost stalled British productivity.

12. A 15-year strategy for education, drawn up in consultation with business leaders, scientists, local mayors, civic leaders and cultural figures, putting education above short-term political parties and bringing out the best in our schools, colleges and universities.

With schools to secure sustained improvement, rather than operating through fear, and a new “school report card” with a wider range of metrics including wellbeing, school culture, inclusion and attendance to unleash the potential of schools.

For any society nothing matters more than the children, the seedcorn of its future and to care for. Yet millions, very often those who have special educational needs, are still denied proper access to libraries and books. Many still leave school rarely literate. Yet we know that books are perhaps the greatest of all pathways to understanding of climate change, its critical effect on the earth. It is our task to enable all our children to have access to the knowledge and insight, helping us all to find new ways, to explore new ideas in education to help to turn the tide for all our children.

For any society nothing matters more than the children, the seedcorn of its future.

Michael Morpurgo explains why it is time for new thinking to leave the best legacy for our children.

There is a tide.

We have had good cause in recent days to pause, to take stock, to think again. There was a time, in and around the year I was born in 1943 when the people of this country and others were enduring the devastating trauma of war. They had partly fled off defeat but were certainly not yet on the road to victory. But they believed in ultimate victory, however remote it must have seemed. And that gave that generation hope, and with that determination to create a better, fairer world after the war was over and won, to begin to conceive a new beginning for all people.

Out of that hope and determination came ideas for radical enabling reform, particularly in the fields of education and health. Their fierce commitment brought about the Education Act 1944, and in 1947 the National Health Service, and much else besides. The world I grew up in was the product of a generation who recognised how great was the need of the people, and how important were their rights to opportunity and fulfilment, no matter where they lived or their social circumstances. There was a tide turning and they recognised it and responded to it.

My generation have benefited hugely from that turning of the tide, from the inspiration and determination of that generation. We may not have been through a war as they had, but we have lived through the darkest and saddest times we have known, during which we have reflected so much, from the blackbird singing in the garden, to the kindness of a neighbour, to the importance of relationships in our families, to the nature of our society itself. We stopped taking people for granted, indeed stopped taking life itself for granted.

But we know that the pandemic would be over one day, that the “normal” we had been so accustomed to was not the normal we wanted to return to, that we should aspire to something better, something fairer, especially for our children. Before our eyes we were witnessing the great benefits and the dedication of the NHS, and indeed its shortcomings.

What of our education system?

For any society nothing matters more than the children, the seedcorn of its future, the contentment of the people, its future cohesion, its future prosperity, its future place in the world. We know we should have an education system in which the wellbeing of every child is the priority, schools in which learning and creativity go hand in hand, where there is room and expertise for the potential of all children to be recognised and nurtured.

We have remarkable teachers all over the country who are guiding our children intellectually and emotionally through all the complexities of growing up, encouraging them, inspiring them, enriching them, devoting their lives to them. We have thousands of remarkable schools. Yet the system has failed and is failing so many.

At the heart of my concerns, as a teacher one way or another all my life, has been that we have a system of education geared to the system, not the child and the teacher and parent and the school. Life is not a race, not a competition. It is for living, for finding your own voice, your self-worth, your own place in society. It is a great teacher, a great school and great parents who help children to find themselves, be one fully who they are, achieve their aspirations.

It was of course a great honour to sit down with my fellow Times Education Commissioners and all the witnesses we called. They came from across our society and spoke, each with deep expertise, knowledge and insight, helping us all to find new ways, explore new ideas in education to help to turn the tide for all our children.

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LEARNING FOR THE FUTURE

The commission found that the system is failing on every measure but its year-long inquiry has some lessons for a way forward, writes Rachel Sylvester, its chairwoman.

“Education,” Socrates told his pupils, “is the kindling of a flame not the filling of a vessel.” The film director and artist Sir Steve McQueen put it slightly differently when he gave evidence to The Times Education Commission. “All kids need is a spark, or half a spark, just a little light. They think, ‘Mmm, that’s interesting,’” the Oscar and Turner Prize winner said. “We’re not creating robots, we want to create great human beings who can actually contribute.” He revealed that his own personal passion at school had been English country dancing.

There are many purposes of education both for individuals and society but underlying them all is the need to give young people the intellectual and emotional tools to live productive, fulfilling lives. The word “educate” has its roots in the Latin word for “bringing out” or “leading forth”. As the best teachers know, education is about identifying and drawing out the talent in every child. It means recognising that there are many ways to capitalise on a student’s potential and there should be more than one route to success. The Harvard education professor Howard Gardner argued that human beings have a variety of different intelligences — emotional and practical as well as academic — and the purpose of education is to develop them all rather than just focusing on one. His approach, he explained to the commission, is: “Don’t ask how intelligent a child is; ask, rather, in which ways is the child intelligent?”

Education also has a social purpose. It broadens minds and advances civilisations. At its best, education is the great liberator, the expander of human horizons. It should be the engine of social mobility — or as the prime minister likes to say “levelling up” — giving every child the chance to flourish whatever their background and capabilities. Schools have the power to foster community cohesion and counter division, making them crucial defenders of democracy. They should inculcate an awareness of the wider world and give students a sense of their place in it. Their aim must be to build happy, confident citizens with an understanding of themselves and an empathy for others.

Then there is the crucial economic role of education. As Andreas Schleicher, director for education and skills at the Organisation for Economic Cooperation and Development (OECD) and the commission’s international adviser, put it: “Your education today is your economy tomorrow.” Schools are the foundation on which the country’s future prosperity is built. A well-functioning education system should provide businesses with the skills they need to thrive while also ensuring that children are ready for work. In order to achieve this aim, it needs to nurture its workforce and harness the power of the latest technologies to simultaneously improve efficiency and prepare students for the modern world.

These multiple purposes of education are interconnected and at times strain against each other. Depending on the priorities of different governments, the system may lean more towards the individual or the collective roles. Yet all are important to the national endeavour as well as personal attainment. And for all the superb work being done by individual teachers and schools around the country, the evidence presented to The Times Education Commission over the past year suggests that the system as a whole is fundamentally failing on every one of these fronts.

This is not just a short-term problem caused by the pandemic. The coronavirus emergency, which led to successive school closures, undoubtedly had a chilling effect on education, particularly for the most disadvantaged. Children lost more than a third of their in-person learning time over the course of a year and the gap between rich and poor students widened. School leaders warn of a “K-shaped” recovery, with the “haves” represented by the upward slope of the K bouncing back quickly while the “have nots” on the downward stroke fell further behind. About 100,000 children have almost entirely disappeared from education since schools returned and are at risk of criminal exploitation or domestic abuse.

Yet the flaws in the education system that were
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uccess in education is still measured almost entirely in academic terms. There are perverse incentives that encourage schools to exclude or "off-roll" students who are unlikely to do well in their exams. This means that young people are suffering as well because they do not get sufficiently stretched in a system driven by averages. The emphasis is on narrow measures of performance. One in six pupils is suffering from a probable mental health disorder. The UK’s students have the second lowest levels of "life satisfaction" in the OECD. A third of teachers are considering leaving the profession and half of head teachers into pre-

quire within five years because of the "unmanageable" workload.

At the same time, the expectation system is failing to sufficiently train up the workforce that the country needs. The Open University’s latest annual Business Barometer found that 63 per cent of business leaders were struggling with recruitment because candidates do not have the skills or necessary experience for the required role. An estimated 9 million working-aged adults in England have low levels of basic literacy or numeracy, including 5 million who have low skills in both, and 22 million lack the technological "life" skills required to participate in the digital world.

There is a significant mismatch between the capabilities being developed in school and those that the economy needs. The gap between supply and demand is already widening fast. The "digital world" is increasingly an outlier compared with the rest of the world of education and the world of work are almost more separate than "they’ve ever been," he said. "It’s crazy and very unfortunate for a lot of people."

He suggested that the failure to address the skills gap could cost the UK £140 billion in lost GDP by 2028. "Standards in education have always been measured by exam, assessments and grades, so it’s not surprising that this has been the focus. However, this is increasingly at the expense of what employers really value — resilience, communication and problem solving. How much time do young people spend developing those skills while studying for the mark scheme?" Without fundamental reform of education he warned. "We’ll be less productive, we will be poorer as a society and the economy will be less competitive internationally."

At a time when productivity is flattening, such warnings cannot be ignored. The commission’s research suggests that parents and employers are also losing faith in the present approach. According to a YouGov poll, almost two thirds of parents think that their children do not adequately prepare young people for work or life. Parents overwhelmingly prioritise their children’s wellbeing over academic attainment — by a two to one margin. They have lost faith that education makes them actually learn. The schools found that almost three quarters of businesses believed that their profitability and productivity would rise by at least 25 per cent if new recruits entered the labour market with skills. Schools, colleges and universities were better prepared and had excellent commercial ability. The analysis concluded that reforming education to make it more commercially relevant could boost the economy by as much as £125 billion a year.

Young people from all over the country, aged from 10 to 21, expressed their frustration about the rigidity of their schooling. As Kai James, 18, from Exeter, put it: "From a really young age we’re preparing for exams. We start at Sats and GCSE and A-level and there’s this kind of drive for exam and exam and exam. Exams are great for people who have an amazing memory and ability to just churn out question after question, whereas it doesn’t seem to cultivate a sense of unique thinking."

Education should be enabling young people to become the best version of themselves, but Gus Casey-Hayford, director of VIA and EA said, too many found themselves "battling through" the education system. "Rather than it being a staircase that they can ascend, it becomes a set of obstacles that they have to negotiate. We push people through these very narrow portals and expect them to succeed. If we were to negotiate. We push people through these very narrow system. "Rather than it being a staircase that they can become the best version of themselves, but Gus Casey-Hayford, director of VIA and EA said, too many found themselves "battling through" the education system. Education should be enabling young people to become the best version of themselves, but Gus Casey-Hayford, director of VIA and EA said, too many found themselves "battling through" the education system.
What was so striking was that we were talking to highly successful people from many different worlds and they were saying that even though they had accumulated more money in was not enough. "There’s got to be a shift of mindset," he said. "We need to unleash the creative potential that lies within almost every child in life."

At regional round table meetings across the UK, the commission repeatedly heard professionals express their frustration about a curriculum and assessment system that is letting pupils down. In Bristol, Glen Potts, a head teacher from Oldham, said children at his school, where more than 40 per cent of the pupils are disadvantaged, had suffered during the pandemic but added: "I don’t believe there’s a recovery needed. The system is designed wrong. Actually if we recover to what we had before Covid it would be a mistake."

At the Eden Project in Cornwall, Lisa Mannall, chief executive of the Cornwall Education Learning Trust and the former regional schools commissioner for the South West, said: "We’re educating children for a world that doesn’t exist."

The way people shop, work, travel, bank and watch television has been utterly transformed over the past decade but schools have failed to keep pace. Instead of adapting to the 21st century, education remains stuck in the 20th and in some ways the 19th century. At the very moment when artificial intelligence is going to take over many routine tasks, education has become more robotic. Just as technology is offering more personalisation in life, schools have become increasingly homogenised. Young people are more socially aware, independent and intellectually engaged than perhaps any previous generation. Yet, pupils who are used to organising climate change campaigns, curating their own Spotify playlists, creating their own eBay business and reseaching their own interests on YouTube are treated in school as passive recipients of knowledge rather than active learners. The case of online schooling during the pandemic showed the power of technology to boost learning but also highlighted the fact that British education is still in many ways an analogue system in a digital age. "It’s as if it’s still selling DVDs in the age of streaming and Netflix," the former Conservative education minister Justin Greening said. It is time to set a new course, building on the successes of the previous reforms, to create an education system that is broader, more relevant, fairer and more rigorous.

The Times Education Commission, set up last June, has spent a year reviewing everything from early years provision right through to higher education and lifelong learning. It is the broadest inquiry ever undertaken in education, with over 200 members from all parts of the system. With fortnightly evidence sessions, regional round table meetings, school visits, international trips, youth panels, parent focus groups and interviews, the commission has heard from more than 600 witnesses, including 13 of the people who have served as education secretary over the past 35 years and two former prime ministers. It has deliberately gone beyond the education and Westminster bubble to consult business leaders, cultural figures and scientists as well as teachers, heads, college principals and vice-chancellors about what the country as a whole needs from its education system to thrive both now and in the future. The approach has been evidence-based and non-ideological, seeking to learn the lessons from the best examples in this country and abroad in a dispassionate, pragmatic fashion.

In Estonia children learn robotics from the age of seven and teachers use virtual reality to bring geography, chemistry, history and languages to life. This tiny former Soviet state has the best education system in Europe, according to the Programme for International Student Assessment, run by the OECD.

Despite relatively low spending Estonia is among the top countries in the world in all three areas on which 15-year-olds are assessed: reading, mathematics and science. Its schools are also among the best at promoting fairness and Estonian pupils are among the happiest in the OECD. Technology is one of the secrets of its success. Estonia sees itself as a start-up nation and 99 per cent of government services are delivered online and the government invests early to ensure that all schools had access to devices and a good internet connection.

Most pupils use electronic timetables and exams are being moved online. Homework and school tests are set digitally. An entrepreneurial spirit runs through the system. Schools have a high degree of autonomy and there are no regular inspections. Schools are evaluated every three years through online tests for pupils and the authorities intervene only if there is a problem. "We trust our teachers and our teachers have a lot of autonomy," Linda Kerina, minister for education and research, told the commission.

There are almost twice as many teachers per pupil in Estonia as in England. All have a masters degree and kindergarten teachers have a first degree. Children in Estonia do not start school until they are seven but they are legally entitled to a kindergarten place from 18 months. School lunches are free, as are transport, textbooks and trips. Classes are mixed ability and pupils are not routinely separated into sets. Most schools have their own psychologist and exclusions are virtually unheard of. Most young people stay in education until 19. Kerina explained that the curriculum was moving away from "knowledge and understanding" towards "implementation, analysis, synthesis and assessment", with more collaboration across subjects. There is an emphasis on problem-solving, critical thinking, values, citizenship, entrepreneurship and digital competence: the qualities that employers say they want.

At the end of their school career students are assessed formally first in Estonia, maths and a foreign language (most choose English) but it is compulsory for pupils to study humanities and sciences up to the age of 19.
and innovative that makes us more competitive as a country then we've got to turbo-charge that. We're not ever that young people are taught not just about facts, but to be creative, to think for themselves, to be mindful of talent.

Over past decades, too much education is changing, it’s more important than ever before that young people are taught not just about facts, but to be creative, to think for themselves, to be mindful of talent.

The sculptor Sir Antony Gormley pointed out that his own successful career had been forged in his school’s well-stocked art room. “It’s not the acquisition of knowledge that is going to create the future, it is the learning of skills, of collaboration, creativity and critical thinking,” he said. To demonstrate that anyone can be creative, he said he throws his dinner party guests a ball of clay at the end of the meal and asks them to mould something. The former footballer and pundit Gary Neville, who now sponsors a university, said the education system had to be reconceptualised to the modern workplace. “The curriculum needs ripping up,” he said.

I don’t think the curriculum needs ripping forward at all in relation to the skills that are required in 2023. There’s no agility, there’s no flexibility.

The venture capitalist Dame Kate Bingham, who oversees the successful business environment programme, argued that the system forces students to choose between humanities and sciences at too early an age. “The change is that the system is putting a brake on kids’ explorations and achievements. Kids expect now that they will be taught in a certain way before they do at school in order to get a good mark. It’s not what I want to know what I do to get a first” of instead I want to explore this subject as widely as I possibly can until my head hurts.

The programme has predicted that, by 2025, 85 million jobs will be displaced by the shift in the division of labour between machines and humans but 91 million new roles may emerge that are more adapted to fill the gaps left by the robots. The "fourth industrial revolution" brought about by the creation of the internet. "I think it’s a bit of a misnomer. The hyper-connectivity of the digital age speeds up innovation as trends spread instantly around the globe. It took radio people 20 years to reach 50 million users. It is impossible to predict the jobs that will be available when today’s primary pupils graduate. The next generation needs to be adaptable, inquisitive and empathetic. More than half the children at school in September in 2023 will live to be a hundred. They will have to retrain many times over the course of their long careers so it is more important than ever to inculcate a love of learning. Quirkiness may become more appealing to employers than uniformity. Tom Fletcher, who was an ambassador for education, described it in Darwinian terms. “Those who adapt fastest will win and those who adapt slowest will lose,” he said. This is the new world we have to adapt to.

The businesswoman Baroness Lane-Fox of Soho, a member of the commission, said there was a danger that the new world plan for schools had been created by the pandemic to rethink certain fundamental things, to have a proper debate of a kind that we very rarely do, because sometimes it feels like everything is being done by a committee. She added that his own successful career had been forged in his school’s well-stocked art room. “It’s not the acquisition of knowledge that is going to create the future, it is the learning of skills, of collaboration, creativity and critical thinking,” he said. To demonstrate that anyone can be creative, he said he throws his dinner party guests a ball of clay at the end of the meal and asks them to mould something. The former footballer and pundit Gary Neville, who now sponsors a university, said the education system had to be reconceptualised to the modern workplace. “The curriculum needs ripping up,” he said.

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disaster as well as a social disgrace at a time when the country needs to harness all its potential in order to be internationally competitive. An analysis by the consultancy Oxera for the commission found that there would be a £45 billion boost to the economy in the long term if social mobility in Britain reached the western European average. The analysts said that the figure, which is the equivalent of £670 per person, was a conservative estimate and the total economic impact was likely to be far higher.

Baroness Shafik, director of the London School of Economics and a former deputy governor of the Bank of England, spoke of the “Lost Einstein”, the missing geniuses of their generation whose potential was being wasted by a flawed and unfair education system. One study in the US found that if this group invented at the same rate as white men from high-income families there would be four times as many inventors in America, creating billions of dollars in economic growth. There is a similar problem in Britain, where it typically takes five generations for someone to go from the bottom to the middle of income distribution. In Denmark it takes two. “The lost productivity and innovation in our societies is huge,” Shafik said.

“...and the all research shows that if you really want to equalise opportunity, the lowest-cost interventions are before anyone ever gets to school. Part of a health visit in the social contract is getting people to realise that the years zero to three are not just the responsibility of parents, they are too important to society to leave it just to families. Some families manage perfectly well, but a lot don’t.”

If the government’s promise to “level up” the disadvantaged parts of society is to mean anything then it must be about more than local bus routes and new mobility. Parents with the best economic start to life have more help to ensure that all children are ready for school, including parenting classes, targeted home visits and drop-in centres. There should be a public information campaign, similar to the “Five to Thrive” information campaign, similar to the “Five to Ten” campaign and the “Five to Nine” campaign about the importance of talking to and playing with your child. The social policy expert Baroness Casey of Blackstock, who has worked for five prime ministers, said: “Education is one of the ways of out poverty and so is family. Where you have both of those things working well, you see people thrive and where you have one of those things not working effectively, sometimes one can override the other. A huge great belief in family intervention. Some of this is about resources, but it’s also about determination and joint-working.”

This is not nanny-statism, it is responsible government. Dame Sally Coates, a former superhead who is now director of academies at United Learning, told her fellow commissioners: “We have to stop the idea of not talking about what happens in the home. It’s absolutely fundamental, and the more we can do to work closely with parents, the more we can educate parents, the more we can get involved from pregnancy, the better.”

In many areas, schools are the natural institutions to co-ordinate this work and some are already doing so. Reach Academy, in the deprived west London suburb of Feltham, holds antenatal classes, yoga sessions and “walk and talk” groups for expectant mothers, the families that most need support being referred by health visitors. Once a child is born the school offers baby massage classes, parenting courses, relationship guidance and play groups. “If we don’t get involved right at the start then we are playing catch-up.”
Deep in the pine forest, tiny children wearing brightly coloured bobble hats form a circle in the snow. It is time for maths at the Kansava nursery in Helsinki, Finland, and the teacher leads a musical counting game.

When the song is over, the six year olds sit down in a clearing and begin to divide small cubes into factors of eight. It is not easy with their thick gloves on but they persevere and have soon achieved the task. A woodpecker taps against a tree in the distance and the sun glistens on the snow as the children run around to warm up.

The children at this kindergarten, aged between one and six, spend most of the time outside whatever the weather. Their mornings, and often their afternoons too, are devoted to exploring and learning in the forest. Between lessons in the snow they climb trees, hang from branches, throw sticks and walk along fallen trunks.

In Finland formal education does not start until the age of seven but learning begins long before that. These children already know the difference between a pine tree and a birch. They can identify birds from their song and understand which mushrooms are poisonous. They have learnt about shapes, sizes and fractions by looking at leaves, pine cones and needles. "We try to use whatever is in nature," Saskia Lamilla, their teacher, said. "We make smoothies with the berries... I've never met a child who this kind of learning doesn't suit. It's more effortless."

The only time the class does not go outside is if it is windy because a tree might fall. "We don't torture the kids but we do go out in every weather so they get used to it," Lamilla said.

The early years have always been taken seriously in Finland. Since the 1930s every mother of a newborn baby has received a cardboard box filled with clothes, sheets, toys and nappies. The box itself is just the right size for a newborn to sleep in. Over the past decade the focus has shifted from social support and parental leave towards child development.

CASE STUDY
If you go down to the woods today you might find a Finnish nursery
up with children throughout their school careers,” Ed Vainker, the chief executive, explained. “In our nursery we can see a huge difference between children even at two or three, based on their earliest experiences.”

The pioneering “cradle-to-career” model, which also includes an all-through-school from age 4 to 18, is already improving outcomes for the most disadvantaged pupils and Reach is working with another 22 schools around the country that want to adopt the programme. There is scope for this approach to be used more widely but most of the early years work is funded by philanthropic donations. Public policy is “a long way behind the science,” said Vainker. “We now know how important those first 1,001 days are, starting at conception and the impact of toxic stress on brain development, but the funding hasn’t caught up.”

The scientific evidence is overwhelming. What happens in the first thousand days of life, and even in the womb, is critical to outcomes later in life. At that stage of development the brain is changing fast and the crucial connections that form depend on the childhood environment and relationships. Researchers found that babies who had suffered extreme emotional deprivation or neglect, and who had been arrested five times by the age of 40, compared with 55 per cent of the control group. The benefits of early intervention are not just in their lives and into the next generation with 67 per cent of the participants’ children completing high school without suspension, compared with 40 per cent of those in the control group.

It is possible to stop the negative behaviour patterns cascading down the generations. Angela Rayner, the Labour deputy leader, explained that, having never been shown love by her bipolar mother as a child, it enabled her to want to go to a Sure Start nursery as a teenage single mum that she realised that she needed to hug her son Ryan. “I thought being a parent was making sure your children were clean and being fed, making sure they go to bed on time, making sure that the house is tidy.” Years later when she saw Ryan pick up his own daughter and cuddle her, she recalled: “I got really tearful. It was so natural for him just to go and say all the things like, ‘I love you, and. ‘You’re amazing’. And I thought, ‘You’ve broken that link.’”

The hearing loss and visual impairment of society of such interventions is enormous. The Nobel prize-winning American economist James Heckman, who has shown that there is a 13 per cent return on investment in the early years as a result of better educational, health and social outcomes. Conversely, the consequences of ignoring this stage of development can be dire. Research for the Duches of Cambridge’s Centre for Early Childhood, conducted with the London School of Economics, found that the social divide is widening in early childhood and that generous Sure Start nurseries, which offer support for parents as well as preschool education, can lower the risk of disadvantage. “The evidence presented to the commission suggests that early years provision needs to be funded as a whole. That was the case when the Sure Start scheme was initiated,” the chief executive, Ed Vainker said. “We now know how important those first 1,001 days are, starting at conception and the impact of toxic stress on brain development, but the funding hasn’t caught up.”

The 30-hour entitlement should be extended to all three and four year olds were eligible, or this would raise spending by about £250 million a year, if all three and four year olds were eligible, or £750 million a year, if all three and four year olds were eligible. Children who have higher earnings; they were also less likely to become pregnant as a teenager or get involved in crime. The results were published in the Journal of Adolescent Health in 2010. Those who had been in the preschool programme graduated from high school, compared with only 60 per cent of those who did not. However, only those who had been arrested five times by the age of 40, compared with 55 per cent of the control group. The benefits of early intervention are not just in their lives and into the next generation with 67 per cent of the participants’ children completing high school without suspension, compared with 40 per cent of those in the control group.

Funding should be targeted at the most areas. The cost has rocketed for parents and the UK has the third most expensive childcare system in the world, behind only Slovakia and Switzerland. A third of working parents of three and four year olds are eligible for 30 hours of government-funded childcare if they have a household income of up to £20,000, but unemployed parents can get only 19 per cent of the threshold of those eligible for the extra free hours are in the top half of the earnings distribution and many of the most vulnerable children are not getting the extra support they need. Instead of driving social mobility, the policy has reinforced inequality. “It’s really stresses how important it is,” she said. “If we have high-quality early childhood education and care that has a positive impact on later life, especially for children who come from a socioeconomic background where their parents might have trouble in school and one to take home. 2017, when the scheme was introduced, pupils were 6.2 percentage points behind the national average in reading, compared with 1.9 points in the control group. The 30-hour entitlement should be extended to non-working parents to ensure that the children who have a similar scheme for childminders called Project, a longitudinal study in the United States, demonstrated that high-quality early intervention can improve efficiency and make it easier for families to work more. While nursery teachers in Finland and Estonia are respected as educators and are required to have a degree, in England the quality of the staff is often treated as a cost-neutral if it took the threshold below £40,000, although it would be a brave chancellor who risked the wrath of Mummet during a cost-cutting crisis.

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The estimated return on investment in early years education which began in the 1960s, found that disadvantaged African-American children who were enrolled in the preschool programme were more likely to graduate from high school than those who had higher earnings; they were also less likely to become pregnant as a teenager or get involved in crime. The results were published in the Journal of Adolescent Health in 2010. Those who had been in the preschool programme graduated from high school, compared with only 60 per cent of those who did not. However, only those who had been arrested five times by the age of 40, compared with 55 per cent of the control group. The benefits of early intervention are not just in their lives and into the next generation with 67 per cent of the participants’ children completing high school without suspension, compared with 40 per cent of those in the control group.

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At the Reach Foundation in Feltham, education begins in the womb. The school runs antenatal classes, yoga sessions and walking groups for expectant mothers. Once children are born, new parents are invited to baby massage classes, parenting courses, relationship guidance and play groups, with the families most in need of support referred by health visitors and midwives. “If we don’t get involved right at the start then we are playing catch-up weeks [of pregnancy],” Vainker said. “We say to the professionals if you’re concerned about a parent then do refer them. There are different vulnerabilities, but the key one is isolation. It’s crazy how much the quality of the child’s experience in the first three years is conditioned by the mental health and wellbeing of the mother. Our experience is that the vast majority of parents who are referred are keen to take up some level of support.” Schools, he suggested, should be “anchor institutions”, the places where community is built. “They need to be outward facing and see themselves as able to affect change.” He said that fewer parents had their extended family living close by than would have been the case fifty years ago. “Middle-class parents lean very heavily on their NCT [National Childbirth Trust] group, but that isn’t afforded to large swathes of the population. We have increasing numbers of parents who are requesting to join.” Reach is already seeing the benefits. “We worked with a boy who started reception and he couldn’t speak at all. At the end of year 6, he got the expected standard in maths. In year 7, he got the expected standard in reading. He’s now in year 9 and he’s pretty much there in writing. We’re hoping he will go to university and that’s our aspiration for him but we probably spend £10,000 to £15,000 a year just on him. We met his sister the same day, when she was 18 months old. We made sure that she went to nursery when she was two, we helped Mum do a course and get into work, we bought toys for the house. His sister is top of her class, she’s in year 7 and we have never spent a penny of marginal funding on her.”

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The number of schools keen to adopt a similar approach to Reach

Academy, which received a visit from the Duchess of Cambridge, above, more than half the children are on free school meals, a measure of poverty. Vainker said that intervening early was the key to equalising educational outcomes later in life. There are 200 mothers with babies accessing Reach services, as well as 900 pupils aged from 4 to 18. “We get our first referrals at 20 weeks [of pregnancy],” Vainker said. “We say to the professionals if you’re concerned about a parent then do refer them. There are different vulnerabilities, but the key one is isolation. It’s crazy how much the quality of the child’s experience in the first three years is conditioned by the mental health and wellbeing of the mother. Our experience is that the vast majority of parents who are referred are keen to take up some level of support.” Schools, he suggested, should be “anchor institutions”, the places where community is built. “They need to be outward facing and see themselves as able to affect change.” He said that fewer parents had their extended family living close by than would have been the case fifty years ago. “Middle-class parents lean very heavily on their NCT [National Childbirth Trust] group, but that isn’t afforded to large swathes of the population. We have increasing numbers of parents who are requesting to join.” Reach is already seeing the benefits. “We worked with a boy who started reception and he couldn’t speak at all. At the end of year 6, he got the expected standard in maths. In year 7, he got the expected standard in reading. He’s now in year 9 and he’s pretty much there in writing. We’re hoping he will go to university and that’s our aspiration for him but we probably spend £10,000 to £15,000 a year just on him. We met his sister the same day, when she was 18 months old. We made sure that she went to nursery when she was two, we helped Mum do a course and get into work, we bought toys for the house. His sister is top of her class, she’s in year 7 and we have never spent a penny of marginal funding on her.”
education but one in eight primary schools does not have a library and children on free school meals are twice as likely to be deprived of that valuable resource. Cressida Emslie, the children’s laureate and author of the How To Train Your Dragon books, told the commission that it was appaling that ‘libraries are statutory in prisons but not in schools’ and that was right.

Every primary school should have a library. The Book Trust estimates that £100 million a year would enable every primary in England to invest in books, expertise and space. The cost could be reduced by asking parents whose children have grown up to recycle favourites. Why not put Book Bank outside schools for donations or ask for contributions on World Book Day? As Sir Michael Morpurgo argued, “that priority must be to create a love of reading for its own sake: ‘There must be space in the curriculum at the end of each day for storytelling and reading, no questions or tests afterwards,’ he said. ‘This is the most important enabling of any school day. Get this right and the pathway opens up ahead.’

The pandemic has left many struggling to catch up on lost learning but some pupils will always need more support than others. For the gap between rich and poor to be closed tutoring will need to become a permanent fixture. The government has acknowledged as much but the US billion National Tutoring Programme, set up after the coronavirus crisis, has been costly, poorly managed and is failing to help the most disadvantaged. It would be better and cheaper to create an army of student tutors to deliver tailored support under a university-led volunteer service. As well as helping pupils who have fallen behind, the undergraduates could give additional sessions in the run-up to exams. They must be properly trained and should earn credit towards their degree for tutoring, either in person or online, in local schools.

Nottingham University already offers a diploma in tutoring and is introducing a new course from September as an optional module for undergraduate degrees. Exeter University is also piloting a student tutoring programme and other universities are interested. In one trial pupil attainment increased by more than three months over the course of a year, disproving the view that tutoring is for the most. Lee Elliot Major, the country’s first professor of social mobility, said that a national programme could be delivered by hundreds of universities across the country, involving tens of thousands of students and benefitting hundreds of thousands of pupils every year. “This is a true levelling-up policy,” he said. “We know there’s been a boom in private tutoring fuelled mainly by middle-class parents. This is about giving similar opportunities to children from families who might not be able to afford this extra help.”

The scheme could boost recruitment to teaching and undergraduates would benefit, said Diane Nuttall, Nottingham University’s chief administrator. Many undergraduates were either unqualified or unwilling to teach. Tutors would also become role models for young people who might not previously have considered going to university. In the Netherlands, the commission heard that undergraduates often went back to their old school to help out in the holidays and that this had helped to boost aspiration among the younger pupils, who see what others from their background had achieved.

This may be as important as what is learnt in the tutoring sessions themselves. There is clearly a correlation between disadvantage and low attainment but economic poverty is not the only, or perhaps even the main, cause of the gap. This is demonstrated vividly by the very different outcomes for various demographic groups growing up with similar levels of deprivation. Girls consistently do better than boys at school and only 18 per cent of white British pupils on free school meals achieved grade 5 in English and maths, compared with 23 per cent of all pupils on free school meals. Only 16 per cent of disadvantaged white pupils get university places, compared with 32 per cent of black Caribbean pupils, 59 per cent of black and 74 per cent of Chinese pupils. The improved results in London in recent years are at least partly to do with high levels of first and second generation immigrant families. White working-class boys are falling behind at every stage, with almost a million students affected. The data indicates that the motivation of pupils may be more damaging than physical deprivation.

The actor Eddie Marsan, who grew up on a council estate in Bethnal Green, east London, recalled that the first time he read a book for pleasure at the age of 16 his father grabbed it and threw it across the room. “The things that held me back were cultural,” he told the commission. “I didn’t have any notion of what the white working class, because they’d experienced poverty over many generations, everything was short term, economically, educationally: so there was no way of thinking beyond the next week or sometimes the next day because you couldn’t plan that far ahead. Trust established in the school community, the parents and the teachers the breadth of what they thought about all aspects of your life.” Clementine Stewart, director of learning at Chatsworth Schools, described a “pawning imposed limitations between children in some communities. She recalled that, when she was working as a teacher, “One dad shouted at me because I’d been teaching his son to read and he’d been telling his son that he was going to be a failure. ‘You’d better get a job when you leave school to help out in the holidays and that this had begun to influence the way you thought through what you cannot do. The curriculum has to have something that is an information value.”

Pupils from all backgrounds have to be able to visualise how school can lead them to a better life, whether that is further or higher education or a job. For many disadvantaged pupils that is not the case. The system values one form of academic success, leaving those who do not excel in exams feeling disengaged. Andrew Coppleson, the principal of West Nottinghamshire College in Mansfield, said education had become narrow: “I know pupils feel completely disenfranchised and they’re labelled all the time you’re failing, you’re not going to get your results. We test them so much but on the other hand we’re debilitating them. They’re corralled through the curriculum.”

The existence of the “forgotten third” of students who do not pass English and maths GCSE at 16 is baked into the system as an inevitable consequence of the lottery system. We need to ensure that a certain proportion of pupils get each mark every year. One head teacher said that it was the modern-day equivalent of “the dunce’s cap”. Geoff Barton, general secretary of the head teachers’ union the Association of School and College Leaders, recalled a conversation with a teacher from a further education college: “He said to me, ‘So I now understand that for the two thirds to be deemed a success, I have to be deemed a failure.’”

Some blame the existence of fee-paying private schools for the social divides in education but the OECD’s Andreas Schleicher said that the real problem was the failure of the state system to get the best out of every pupil. “There is a large fairness gap but it’s not so much between schools,” he said. “The big social gap is happening in private schools. Many students fall through the cracks … you have more social segregation within the [state] school system than between [state] and private schools. And because it goes unnoticed, very few people do something about it. Other education systems are much more aware of the challenges they face.”

For the prime minister’s ‘levelling-up’ mantra to become a reality, these differences can no longer be ignored. The system needs to be built around working out what children can do rather than forcing them through what they cannot do. The curriculum has to feel relevant to young people in all parts of the country and from every background. Education should be turned from something passive, that is done to children, into something empowering that allows all pupils to feel that they are a success. Every child must be noticed and none should be written off.
THE CURRICULUM

RIGID AND INFLEXIBLE

Most schools are constrained by an outdated rubric imposed by Whitehall that has no room for regional variation and takes little account of employers' needs.

Blackpool is showing how a “left behind” area can embrace new thinking to start to turn around its fortunes. The Lancashire coastal resort has long been a symbol of social and economic decline, a town on the margins both physically and metaphorically. Unemployment and welfare dependence are high. The resort has the lowest life expectancy in the country and the highest rate of drug deaths. Two thirds of children achieve two good GCSEs in English and maths and a symbol of social and economic decline, a town on the margins both physically and metaphorically. Unemployment and welfare dependence are high. The resort has the lowest life expectancy in the country and the highest rate of drug deaths. Two thirds of children achieve two good GCSEs in English and maths and the highest rate of drug deaths.

Now, though, the schools are starting to improve and there is reason to be hopeful. The curriculum is drawn up at Whitehall, allows too little scope for regional variation to take account of local business needs. Lord O'Neill of Gatley, the former chairman of Goldman Sachs Asset Management who helped to set up the Northern Powerhouse Partnership as a Treasury minister under George Osborne, told the commission: “The Department for Education has a far too centralised national approach to everything. Levelling up can mean endless things but ultimately creating opportunity for all is what it has to be about and the education system is hindering that because it’s too rigid. It’s tragic.”

The content sometimes seems obscure. During the pandemic parents were baffled to discover that their children were learning all about something called decolonisation. Even Nadhim Zahawi, the education secretary, later admitted that he had no idea what they were. With rows over decolonisation, empire and gender, the curriculum has been dragged into the culture wars by both sides of the political debate. Bright, mobile graduates who have gone into the culture wars by both sides of the political debate. Bright, mobile graduates who have gone into the culture wars by both sides of the political debate.

Like the tax code, which grows inexorably as everybody lobbies for additions and carve outs, the national curriculum has swollen to almost 80,000 words longer than Harry Potter and the Philosopher’s Stone. In theory free schools are allowed to ignore it but in reality almost all follow the national rubric because the exam system demands it and they fear that they will be punished by the all-powerful Ofsted if they deviate from the norm.

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There is, as several business leaders told the commission, a “chasm” between the two worlds and this is not an oversight, it is a deliberate choice. The business leaders, scientists and cultural figures that the education system and the world of work are different, are different. They want — as “one of the most damaging myths in education”. The education system is being peddled by educationists” who want to introduce pupils to the languages that I can’t even taste them. But they should also be given the chance to develop different skills, which will give them the practical, co-curricular activities such as sport, drama, music or debating.

The knowledge-rich curriculum, beloved by devotees, such as Gibb, of the American ED Hirsch, is necessary but not sufficient. Critics have heard from many of the country’s most successful business leaders, scientists and cultural figures that it does not meet the needs of the world, or provide young people with the tools to flourish.

The focus on traditional academic subjects has led to a narrowing of education, with practice practical work drummed out. Since 2001 when the government introduced the English Baccalaureate accountability tool, which means the proportion of children who secure a grade 4 or 5 (equivalent to C) or above in maths, science, geography or history and a language of their choosing, children have been doing less well than their counterparts from less well-off subjects. The number of candidates sitting the design and technology GCSE has fallen by almost 80 per cent, music has reduced by 36 per cent and drama by 40 per cent since their peak in the mid-2000s. There was a 40 per cent drop in GCSE entries in computing or ICT from 2015 to 2020. Dr James Dyson, govt the Royal College of Art before training as an engineer, told the commission that the decline of design and technology was “a real concern for Britain. Mother have downgraded it and put it on the same level as cookery.” Well, cookery is a wonderful thing, which you can be academic curators but we don’t train them to be professional art handlers. We’re seeing critical shortages in the areas of both art and practical art handlers. We’re seeing critical shortages in the areas of both art and practical art handlers. We’re seeing critical shortages in the areas of both art and practical art handlers.

The government has already announced plans for a new batch of highly selective academic sixth forms. The commission proposes that there should be an equal prioritization of technical and vocational sixth forms, driven by industry, set up as part of the free schools programme. These Career Academies would provide young people with, for a curriculum specifically designed to fill skills shortages. The London Screen Academy, which set up top film producer companies who were struggling to recruit production staff, offers a university-certified diploma that is the equivalent of a degree. A levels along an extended Apprenticeship or Foundation project, mentoring and work experience. The school is supported, both financially and in terms of job opportunities, by all the big film studios and almost a third of the UK’s 1,000 graduates walked straight into a job at a18. Tim Bevan, co-founder and co-chairman of Working Title Films, said the aim was to pioneer a new form of learning. “Vocational education gets a bad rap and what we want to do is flip that on its head,” he told the commission. “We want this to be a shining light of how the whole school happens to be vocational and happens to be about film.”

There is as several business leaders told the government, a “chasm” between the two worlds and this is not an oversight, it is a deliberate choice. The business leaders, scientists and cultural figures that the education system is being peddled by educationists” who want to introduce pupils to the languages that I can’t even taste them. But they should also be given the chance to develop different skills, which will give them the practical, co-curricular activities such as sport, drama, music or debating.

The knowledge-rich curriculum, beloved by devotees, such as Gibb, of the American ED Hirsch, is necessary but not sufficient. Critics have heard from many of the country’s most successful business leaders, scientists and cultural figures that it does not meet the needs of the world, or provide young people with the tools to flourish. The focus on traditional academic subjects has led to a narrowing of education, with practice practical work drummed out. Since 2001 when the government introduced the English Baccalaureate accountability tool, which means the proportion of children who secure a grade 4 or 5 (equivalent to C) or above in maths, science, geography or history and a language of their choosing, children have been doing less well than their counterparts from less well-off subjects. The number of candidates sitting the design and technology GCSE has fallen by almost 80 per cent, music has reduced by 36 per cent and drama by 40 per cent since their peak in the mid-2000s. There was a 40 per cent drop in GCSE entries in computing or ICT from 2015 to 2020. Dr James Dyson, govt the Royal College of Art before training as an engineer, told the commission that the decline of design and technology was “a real concern for Britain. Mother have downgraded it and put it on the same level as cookery.” Well, cookery is a wonderful thing, which you can be academic curators but we don’t train them to be professional art handlers. We’re seeing critical shortages in the areas of both art and practical art handlers. We’re seeing critical shortages in the areas of both art and practical art handlers. We’re seeing critical shortages in the areas of both art and practical art handlers. We’re seeing critical shortages in the areas of both art and practical art handlers.

The government has already announced plans for a new batch of highly selective academic sixth forms. The commission proposes that there should be an equal prioritization of technical and vocational sixth forms, driven by industry, set up as part of the free schools programme. These Career Academies would provide young people with, for a curriculum specifically designed to fill skills shortages. The London Screen Academy, which set up top film producer companies who were struggling to recruit production staff, offers a university-certified diploma that is the equivalent of a degree. A levels along an extended Apprenticeship or Foundation project, mentoring and work experience. The school is supported, both financially and in terms of job opportunities, by all the big film studios and almost a third of the UK’s 1,000 graduates walked straight into a job at a18. Tim Bevan, co-founder and co-chairman of Working Title Films, said the aim was to pioneer a new form of learning. “Vocational education gets a bad rap and what we want to do is flip that on its head,” he told the commission. “We want this to be a shining light of how the whole school happens to be vocational and happens to be about film.”
You don’t excite people with lots and lots of facts... we need to excite people with ideas and understanding

The Neoliberal Prize-winning geneticist Sir Paul Nurse, director of the Francis Crick Institute, said that greater breadth was needed to inspire the next generation. "It isn’t good that they have such a narrow experience academically," he said. "You don’t excite people with lots and lots of facts. When I look at the textbooks that we give them, it fills me with horror. The textbooks get thicker and the ideas get thinner and I really don’t think that’s good. We need to excite people with ideas and understanding, and in the sciences we need to communicate what science is and what isn’t science." Conspiracy theorists, climate change deniers and antivaxers were "pushing at an open door because of the failure of our education system to a library, which is organised in a completely networked way".

The government has already recognised the shift with a new natural history GCSE that will be available to students from 2025 but there is further to go. At XP, a free school in Doncaster, the traditional subject boundaries have been completely abolished. There are no history, geography, chemistry, physics, biology, English or maths classes. Students instead learn through academically rigorous cross-curricular "experiences", based on real-life issues such as climate change, pandemics or immigration.

The UCL Academy in north London offers a "connected curriculum" with subjects linked each term into "Grand Challenges" such as global health, sustainable cities or transformative technology. Some of the lessons are taught in vast studios where two or three different subject classes are brought together. Simon McBride, the co-principal, said: "Teachers absolutely love it and our attendance rate for disadvantaged students in this school is way above the national average. Why is that? Well for me, it’s a hypothesis only, it’s because they actually enjoy their learning.“

Learning should be fun, with hands-on experience as well as desk work but education has become increasingly theoretical. Only 37 per cent of students took part in science practicals in 2019 (down from 44 per cent three years previously) and the decline was concentrated in more deprived areas. The microbiologist Sir Richard Sykes, chairman of the vaccine taskforce and the Royal Institution, warned that the fall in practical work made it less likely that the Sarah Gilberts of the future would emerge. "Young people inventing vaccines because you’ve been in the laboratory, you spend hours and hours doing stuff. Understanding is 99 per cent preparation and 1 per cent inspiration and that’s what you’ve got to get used to."

But he said that this was becoming almost impossible in state schools. "There’s no money. To run practical classes you need technicians, you need to set up the laboratory, the kids come in, they do the experiments, they’ve got people helping them. Today that happens in the private sector, it doesn’t happen in the state sector, very rarely."

The ability to speak a foreign language is going to be essential for young people going out into a globalised world, and crucial for the country’s economy, but there has been a steady decline in the number of pupils taking French, German or Spanish GCSE over the past 20 years. Only 9 per cent of English 15-year-olds were competent in their first foreign language, compared with an average of 42 per cent across 14 European countries. That must be reversed and bursaries or trainee language teachers should be brought in to teach with science and maths. Foreign students could also be recruited through the volunteer tutoring programme to work as virtual language assistants. Schools must do more to encourage pupils who speak English as a second language to gain a qualification in their native tongue, turning bilingual students into what Barness Cousins, former chief executive of the Portman Group and a campaigner on modern foreign languages, called "two million qualified assets".

The independent sector has long understood the importance of the spoken as well as the written word. Communication skills — "oracy" in the jargon — should become mainstream in state schools too. Pupils need to learn to converse, to debate, to present, to persuade, to justify and to challenge. These tools are highly valued by employers but they are not systematically taught in schools, said the report. The government’s ambition of "two million qualified assets" is also helping to raise standards. The mantra is "learn by heart" and there are clear rules. Every morning pupils line up while teachers check that they have the correct uniform, equipment and books. There is an emphasis on character as well as qualifications. Wednesday afternoons are dedicated to non-academic "electives" such as gardening, chess, debating, coding, creative writing and sport.

All pupils learn an instrument in year 7 and 95 per cent of pupils play for a school sports team.

The benefits of silent corridors and the sound of music

Children walk silently in single file down the corridor in a block before turning into classrooms and settling down to lessons on trigonometry. A poster reminds them of the Star cosy corner they must follow: "Sit up straight. Track the speaker. Ask and answer questions. Remember: Silence!"

This is Bedford Free School, which has a curriculum that is rigorous and outstanding academic results. As one of 22 schools chosen to lead government behaviour hubs across England, it is also helping to raise standards. The mantra is "learn by heart" and there are clear rules. Every morning pupils line up while teachers check that they have the correct uniform, equipment and books. There is an emphasis on character as well as qualifications. Wednesday afternoons are dedicated to non-academic "electives" such as gardening, chess, debating, coding, creative writing and sport.

All pupils learn an instrument in year 7 and 95 per cent of pupils play for a school sports team.
At XP, a free school in Doncaster, there are no history, geography, chemistry, physics, English or art lessons. The traditional curriculum has been ripped up at this state secondary and students learn instead through academically rigorous ‘expeditions’ based on real-life issues. Pupils go on field trips and have guest speakers. At the end of each project they create a final product – a mural, a film or a book – and present their findings to an audience of parents, teachers and local dignitaries at a public meeting. The cross-curricular themes are chosen for their contemporary or community resonance. When pupils returned from the first lockdown, for example, they undertook a special expedition about Covid-19. They learnt science through studying vaccines, maths by looking at graphs of the virus’s exponential growth and history by researching the black death and Spanish flu. The literature component came from reading Charles Dickens on cholera and tuberculosis.

At the end of the project they covered politics and ethics by drawing up their own ten-point plan setting out what they would do to deal with the pandemic if they were prime minister. The school, in the heart of the politically contested “red wall”, has been judged outstanding by Ofsted, is heavily oversubscribed and has above-average exam results. But it puts a strong emphasis on mental health as well as academic outcomes. There are no uniforms or detentions and nobody has been excluded in seven years. The motto at the school is ‘Above all, Compassion’. XP has a weekly ‘community meeting’ where students can challenge or apologise for bad behaviour and vocalise “appreciations” of their peers and teachers. Instead of a traditional parents’ evening, the school has a “student-led conference”. Jamie Portman, the principal said: “The work is very academically challenging. But academic success doesn’t entirely drive us. Our curriculum is three-dimensional: academic success, character building and beautiful work. We don’t say, ‘Right, period four, we’re going to do history. Period five, you’ve got geography. It’s. Period four and five you’ve got humanities’ and history and English might be blended in there. “Our curriculum is knowledge-rich but I actually think it’s some of the other strands of what we do that makes the knowledge stick. We humanise the learning.”
The front bench, understand that it’s really key part of the front bench.

The director Sir Nicholas Hytner said the sidelined of cultural activities in state schools was fuelling social division. “I think education has become too narrow and one knock-on consequence of that is that the sector that I’m part of then appears to be elitist in the way it goes about making performing arts and in the people that it attracts to those performing arts. And it really is not our elitism that is at fault. It is an elitism that is a direct consequence of education policy and education funding. It’s no surprise that the private sector is so good at turning out musicians, actors, playwrights, filmmakers because the facilities available are so extraordinarily good.”

In the school hall at Ormiston Salford in Walsall, the commission watched students who had never seen a play before sit entrance for 90 minutes during a performance of Evam Placey’s Jekyll and Hyde. It was part of the National Theatre’s eight-week school tour, during which the set was recreated in deprived parts of the country for 10,500 pupils. At the end of each show the cast and crew took questions about the production and their jobs. Often the stage manager and lighting technicians provoked as much interest as the actors from young people who discovered a whole new set of careers. Michael Riley, the senior vice-principal at Ormiston Salford, said that the arts were a powerful driver for addressing the gap pupils are struggling with a “heady mix of really low aspiration, social challenges, issues around poverty, neglect. When the head of the theatre is safe, they’re safe, but we need to get them to aspire to more. When we talk to our students about looking further than the local boundaries, about universities or higher level apprenticeships, part of that is about showing them things that go beyond the domestic walls. Part of that includes great theatre.”

Even before the pandemic, participation in the arts had declined. 90 per cent of state secondary schools having made cuts to the provision of creative subjects. There has been a 47 per cent reduction in participation in theatre and drama and a 36 per cent fall in music. Competitive sport is down by 13 per cent and there are similar decreases for visits to heritage sites, museums and libraries.

The Bridge Foundation analyses the pipeline between education and employment and produces regular skills shortages bulletins. Olly Newton, executive director, believes that an outdated curriculum is failing to prepare young people for work. “There is quite an old-fashioned view of the education system, that if only we could give every young person access to the great bastions of knowledge and cultural highlights, and hand these on to the next generation, then somehow, automatically, they would get hold of the skills that we’re looking for, the creativity. It’s a mistake of looking at independent schools or grammar schools in earlier decades and thinking, ‘Oh well, they’ve got this traditional curriculum and their students are now sitting at the top of society, so surely that should have strategy to learn what it misses the fact that, in those schools, they have a massive focus on things like performing arts and sport and music and dance and drama, which, when we talk to the people who lead those schools — and, indeed, their alumni — are one of the things that’s really driven them to great things.

Times commissioner, said cultural institutions such as has would be pleased to play a greater role in a "post-exam factory" world. “We do professional development for teachers. When we enter school competitions, we provide curriculum material. You can spark the imagination with school trips: all the stuff that has been stripped out which is actually the only thing you remember about school.”

Sir Peter Bazalgette, the chairman of ITV and head of the government’s Creative Industries Council, argued that it was a mistake to sideline cultural education when the creative industries generated £110 billion for the economy. “In the last 20 years, there’s been a determined and admirable drive to improve literacy and numeracy but you don’t want to get to a situation where education becomes too utilitarian. You’ve got to have time to dream, time to imagine. not just because that comes brilliant, creative geniuses who may want to create a career out of it but also because that’s how we become richer and more enriched.”

There is evidence that taking part in wider cultural activities can also boost academic outcomes. SATs results at two primary schools in Yorkshire rose by 20 per cent after they allocated three hours of musical activity every week with singing sessions organised by Opera North. The head teachers said that the cultural enrichment had created more positive attitudes to learning and boosted the children’s self-confidence and social skills. “The Royal Shakespeare Company’s programme in schools also generated statistically significant improvements in pupils’ attitudes not just to Shakespeare but to education more generally, according to an independent evaluation by Warwick University.”

Támara Rojo, the director of the English National Ballet, highlighted the link between ballet and maths. When she is choreographing a dance, she thinks of it as algebra. “I see the equations and I see the patterns,” she told the commission. This is something that some private school children, who grew out of the Massachusetts Institute of Technology in the US, have had astonishing results teaching maths to girls through dance. Pupils have an average improvement in SATs results of 184 per cent and the performance of some increased by 600 per cent. “I genuinely believe in the power of arts to level up,” Rojo said.

In Wales some schools have been piloting an extended day to give more time for a broader range of activities. Kim Fisher, the head of a Cardiff primary school club, which grew out of the Massachusetts Institute of Technology in the US, has had astonishing results teaching maths to girls through dance. Pupils have an average improvement in SATs results of 184 per cent and the performance of some increased by 600 per cent. “I genuinely believe in the power of arts to level up,” Rojo said.

The policy was helping to engage the poorest pupils in school. “Children in disadvantaged areas don’t achieve as well and with the poverty gap has widened because of the experiences they don’t have,” he said. Although it was too early to assess the full impact of the cultural programme the day on academic performance he said it “had a huge impact on improving attendance for some of our vulnerable pupils.”

Private schools understand all too well that there must be more to education than knowledge and the independent sector has invested heavily in theatres, art schools and music studios. Rufus Norris, the artistic director of the National Theatre, told the commission: “I find it very frustrating that these pupils are struggling with a ‘heady mix of really low aspiration, social challenges, issues around poverty, neglect. When the head of the theatre is safe, they’re safe, but we need to get them to aspire to more. When we talk to our students about looking further than the local boundaries, about universities or higher level

You’ve got to have time to dream… that’s how our lives are enriched.
NOT MAKING THE GRADE

No other developed country’s teenagers sit as many high-stakes tests as ours do and the focus on academic attainment has unbalanced the system

A few years ago, Ian McEwan’s son was asked to write an essay on Enduring Love, one of the novelist’s most celebrated books. Before submitting his work, he talked to his father about the meaning of the text and wrote a well-informed analysis. He was given a terrible grade. He was marked down because his essay did not fit into the teacher’s rubric of correct answers. McEwan does not blame the teacher and now describes it as a “minor affair.” “Her error was in lowering his mark for his arguments rather than for the cogency with which he presented them,” he suggested. The incident is, however, symptomatic of a mark-scheme mentality in the education system that is undermining the true purpose of learning.

High-stakes assessment has become the tail that wags the dog, not only in the UK but around the world. The number of exams that pupils take in England is, by far, the highest in the developed world and the pressure to maintain high grades is relentless. A young person doing eight GCSEs and three A-levels will take 42 external exams and lose about two terms of learning in preparation and exam time. For some pupils, so much of their final year is spent doing past papers that they lose any enthusiasm for the subjects they are studying. Lucy Kellaway, who teaches in east London and is co-founder of Now Teach, described the wider stultifying effect of teaching to the test. “We’ve talked about GCSEs failing the bottom third but what I see is that they fail all of my students, even the ones who are going to do very well in them,” she told her fellow commissioners. “To do well, you need to be really good at exam technique and this strikes me as the world’s most boring and pointless skill. It has really no value in the rest of your life at all but that is what we all spend all of our time doing.”

The financial cost is also enormous. The think tank EDSK estimates that GCSE exam board fees alone cost £200 million a year and a full audit of the exam system, cited in parliament in 2008, put the total cost of employers agree it is important to their organisation that an assessment system assesses abilities beyond academic performance.

41% of employers expect to have shortages in the skills needed to support the transition to net zero within the next 12 months.

89% of employers agree it is important to their organisation that an assessment system assesses abilities beyond academic performance.

50% of employers say their organisation could contribute to a more resilient UK economy if the education system were reimagined to better meet their needs.
A-grade and A* A-levels still matter, according to their possessors. Almost three quarters of businesses in the PwC survey said that recent grade inflation had devalued qualifications. Companies also told the commission that the shift away from traditional measures of attainment was part of their social mobility strategy. Kevin Ellis, the company’s chief executive, said exam scores were by definition “excluding” and not a good measure of potential. “Dropping exams as one of the filter categories improved our diversity of intake and therefore improved our success as a business.” The year after EY, one of Britain’s biggest graduate recruiters, eliminated the requirement for A-levels at 15, the number of recruits from state schools rose 10 percentage points to 49 per cent for graduates and 59 per cent for school leavers.

Peter Harrison, chief executive of the assessment management company Scheider, explained why his company had moved to CV-blind recruitment. “A-levels are a poor shorthand, GCSEs are totally irrelevant, and so all the energy in the education system is going on the wrong things,” he told the commission. “We find our aptitude testing comes up with a completely different group of people and you end up with much more diversity. Its testing innate intelligence rather than learnt subjects. What we want are negotiation skills, judgment, decision-making, emotional intelligence, management skills, creativity, critical thinking. We don’t need people to be able to declaim Latin, we want them to have a service mindset, cognitive flexibility and an ability to see things in the round. That is so different from the rote-learning based approach which GCSEs encourage.”

Many employers appear to have concluded that grades are no predictor of future performance. Euan Blair, the founder of MultiVerse, which promotes professional apprenticeships, said: “When we look at the apprentices that we place, we’ve actually seen no difference between those who were getting Cs, or grade 4s in GCSEs and those who are getting A*s in GCSEs, in terms of the employer they go on to, how long they’ve remained in their job, their performance reviews and their progression after that fact. There are being built up into big things that determine your success or failure later, at age 16, which is astonishing, and there’s actually no correlation at all. Other than signalling, they’re not at all important and employers don’t really care.”

The entrepreneur Sir Ian Livingstone, one of the founding fathers of the UK video games industry, insisted that the transition from GCSEs to A-levels made little sense. “I know I would look at a high school diploma which is sufficiently broad for those who are going down a more or less academic route.”

A-levels at more than three times that amount. There are growing questions about the fairness and accuracy of the system too. A-levels and GCSEs are held up by ministers as the “gold standard” but the exam regulator Ofqual says that the marking is accurate only to one grade either side. According to an analysis for the campaign group Rethinking Assessment this means that on average one exam grade in every four is wrong. Those who can afford to pay the fee to resit the exams frequently get them changed. After the 2018 exams, a fifth of the GCSE grades that were remarked ended up being altered.

The businessman Sir Charlie Mayfield, a former chairman of the UK Commission for Employment and Skills, said the relentless chasing after grades was harming the outcomes that really mattered in life. “If you were able to take out one set of public exams and keep people broader for longer, you might actually give teachers more time to teach a wider set of skills, not just around the marking scheme for an exam.” Businesses have lost faith in exams and a growing number of employers now ignore A-level and GCSE results altogether in favour of their own direct assessment of candidates. The PwC business survey for the commission found that one in six companies take no notice at all of exam grades. 74 per cent use their own assessment techniques in addition to school or university grades; and 89 per cent believe it is more important for young people to be assessed on more than just an academic attainment. Indeed, PwC itself no longer uses grades to select trainees. Instead it runs its own psychometric tests to determine candidates’ approach to risk, analytical skills and emotional intelligence. The Royal Bank of Scotland employs situational judgment tests and online aptitude tests and the magic circle law firm Clifford Chance has introduced a CV-blind approach.

Dame Sharon White, chairwoman of the John Lewis Partnership, explained that her company was increasingly relying on its own online assessments because it could no longer trust the state-run exams. “The system has become even more narrow, limited and box-ticking,” she said. “We try as far as possible to set to one side people’s qualifications. They turn out not to be a very good indicator of how well somebody will do in the partnership.” Education should in her view be much broader and more from “rote learning and memorisation” to “skills like project management, assessing children on teamwork and the ability to make a product”. That might, she said, be better done through more continuous assessment than exams. “It’s very rare that there are any work tasks where you have two and a quarter hours to get from A to B. The way in which assessments are done should be looking at the world of work. I wouldn’t have a separate step at 16. I would look at a high school diploma which is sufficiently broad for those who are going down a more or less academic route.”

At a time when an ever more interconnected globe requires cross-fertilisation across disciplines, pupils are forced to specialise far too early, often selecting their GCSEs at 13 and A-levels at 15. An analysis by the Education Policy Institute for the Royal Society showed that the proportion of A-level students covering at least three of the main subject groups — humanities, sciences, modern languages and vocational — has halved since 2010. The former Conservative Cabinet minister Lord Willetts described the narrowing down to three A-levels at 16 as “bathetic” and suggested “it creates a particularly acute conflict between the two cultures of arts and sciences, far worse than in any other country in the western world.”

The entrepreneur Sir Ian Livingstone, one of the founding fathers of the UK video games industry, insisted that the transition from GCSEs to A-levels made little sense. “I know I would look at a high school diploma which is sufficiently broad for those who are going down a more or less academic route.”

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because they don’t see the relevance of it. I’d like to get to the situation where technical education could be part of an offer, not a binary divide. Why on earth the government thinks that doing a written exam, which requires lots of short-term memory recall, is a good way of working out whether you should be going on to do brickwork or carpentry or engineering or hairdressing I don’t know. It’s completely inappropriate.

There is also a scientific case for looking again at the way children are assessed. Sarah-Jayne Blakemore, professor of psychology and cognitive neuroscience at Cambridge University and a member of the commission, argued that the exam system was failing to capitalise on the potential of the teenage brain, or take account of the latest developments in neuroscience. “GCSEs were brought in in the late Eighties, when we knew nothing about how the brain, and cognition develop. Back then we assumed that the human brain stops developing in adolescence. We now know, from research in the last 25 years, that that’s absolutely not the case and, in fact, adolescence is a time of profound change, not just in terms of the brain, but also in terms of cognitive abilities like decision-making and planning and self-awareness, and also creativity.”

The teenage years are also a period of vulnerability for mental health problems, probably partly because of all the changes that are going on in the brain, she said. “The peak age at which mood disorders like depression start is 15 to 16 years. That’s exactly when young people are expected to cram masses of information for these very high-stakes national exams, GCSEs. My view is that, based on what the new science shows us about brain development and cognitive development, and the fact that this period of life is a period of vulnerability to mental health problems, we need to completely rethink the way we do assessment at 16.

The commission proposes the introduction of a British Baccalaureate at 18, an equally rigorous but protracted development right throughout childhood, and also throughout adolescence and even into the 20s. Adolescence is a time of profound change, not just in terms of the brain, but also in terms of cognitive abilities like decision-making and planning and self-awareness, and also creativity.”

There is the possibility to “mix and match” between the two trajectories and pupils often share classes. Students on the diploma programme study six subjects: three major and three minor. Each of the majors is the equivalent of an A-level, in terms of teaching hours and UCAS points. “One of the most pernicious myths, as it were, is that the IB DP is all about breadth and you never get to any of the depth absolutely untrue,” said Jo Sale, the vice-principal.

“The extended essay is like an undergraduate thesis and you work one-to-one with a member of staff who is called your supervisor, so again mirroring that university experience.”

On the career path, students can take BTECs as part of the qualification: the school offers performing arts, sports studies and health and social care. Leanne Gibbons, the head of the career path programme, said the vocational route “opens doors” for students. “The beauty for me is that it marries the vocational with the academic,” she said.

We have quite a few students whose parents did not go to university, who have not actually considered that kind of pathway. They are bright, they are hardworking, they know that they have a particular ambition but they might not consider university. A number of them go on to apprenticeships but interestingly most of our CP students apply to university in the end.”

The IB courses involve more teaching hours than A-levels, but students like being able to mix subjects and disciplines.

We need to completely rethink the way we do assessment at 16.

Adolescence is a time of profound change.
The focus on facts is not what will define progress, we would introduce the flexibility that the system needed. The Baccalaureate model was “far superior” to A-levels and GCSEs. The former prime minister Sir John Major worried that reform was “Labour’s biggest failure during my time in government.”

The Baccalaureate could apply across the United Kingdom. Scotland is starting to review of assessment and the commission would offer this model as an option that would benefit young people north and south of the border. The British

Wellbeing First
Thinking about your children’s education in general, which of the following is more important to you?

- Their wellbeing
- Their academic attainment
- Both equally
- Don’t know

Survey conducted on a sample of 1,993 parents of school-aged children, April 22-23, 2022
Source: YouGov, The Times Survey Results
more than any other country except Japan.

school teachers said they worked 52.1 hours a week, the fourth highest of the 48 countries polled. Primary

a week, compared to the OECD average of 41 hours,

Survey revealed that teachers in England worked more

up. The latest Teaching and Learning International

for having failed to listen to or value them.

profession had got worse and blamed the government

they were worried about the impact on their wellbeing.

Teacher pay has risen, although increases to the cost of

STARTING SALARIES

Teacher pay has risen, although increases to the cost of living erode these improvements

With schools closed and pupils forced to stay at home, parents began to understand just how difficult it is to devise interesting and inspirational content for their children.

Research from around the world shows that good teaching is the key to success in education. As the veteran Whitley reformer Sir Michael Barber put it

“Our quality of an education system cannot exceed the quality of its teachers.” In England, though, instead of being nurtured and encouraged to hone their craft, teachers are too often infantilised by the education system and maligned by politicians who denounce them as part of “the blob”. They feel disempowered by an overprescriptive curriculum and demoralised by teaching to the test. It is no wonder that the recruitment and retention crisis is growing with potentially devastating consequences for schools.

A YouGov poll of teachers for the commission found that one in three planned to leave within five years and one in six within a year. The number of reported teacher vacancies in state schools has more than doubled over the past decade and a longstanding problem is getting worse. This year only 75 per cent of the target number of physics teachers is on track to be recruited and languages and computing are also well under 50 per cent. In the most disadvantaged schools, 85 per cent of teachers say that recruitment is affecting the quality of education in their school.

The government has promised to raise starting salaries to £30,000 for new teachers but that risks creating resentment among more senior staff who have had their wages eroded. According to the Institute for Fiscal Studies (IFS) experienced classroom teachers will have had a real-terms pay cut of 14 per cent between 2010 and 2023. As Paul Johnson, the IFS director, said: “You’re not in the long run going to be able to keep and attract the right people to teach if you keep reducing salaries, and of course that is going to matter.”

Money is clearly an issue but teachers reported overwhelmingly that the pressure of the job was a greater problem for them than pay. In a Teacher Tapp survey for the commission, 47 per cent of teachers said reducing the workload would make the biggest difference to their morale, and 26 per cent who said that more money would give the greatest boost.

A poll last year by the National Education Union (NEU) found that workload had increased for 70 per cent of teachers and 95 per cent admitted that they were worried about the impact on their wellbeing.

Two thirds of teachers said that the status of the profession had got worse and blamed the government for having failed to listen to or value them.

There is a growing sense of weariness and dissatisfaction. Over the past decade the increase in the number of teachers has not kept pace with the rise in pupils and so the ratio of pupils to teachers has gone up. The latest Teaching and Learning International Survey revealed that teachers in England worked more hours than anywhere else in Europe. Only teachers in Japan, Kazakhstan and Alberta, Canada, did more. The OECD found that full-time secondary school teachers in England reported working on average 49.1 hours a week, compared to the OECD average of 41 hours, the fourth highest of the 48 countries polled. Primary school teachers said they worked 52.1 hours a week, more than any other country except Japan.

Increasingly, teachers are being asked to become psychotherapists, social workers and even housing officers as well as educators. This is emotionally and physically exhausting for staff who are already feeling overstretched. As Evelyn Forde, a head teacher and Times commissioner, explained: “There’s a pressure on school leaders and teachers to be the answer to absolutely everything, particularly as we come out of the pandemic. We went to deliver meals; now we are mental health workers and we’re on suicide watch for young people; but we’ve had no training for that. Yes, we must elevate the status of teachers, but I think we need to be kind to them and we need to look after them because many of us are at breaking point.”

Meanwhile, the joy of teaching has been drummed out by a blizzard of appraisals, marking, data management and regimented lesson plans. Every week 11 per cent of primary teachers and 6 per cent of secondary teachers spend seven or more hours a
there has been an almost total breakdown of trust between Ofsted and the schools it is supposed to be holding to account. When the commission asked teachers to rate Ofsted in the way that Ofsted ranks schools less than 0.5 per cent gave it an “outstanding” rating. An overwhelming majority — 79 per cent — categorised Ofsted as “inadequate” or “requires improvement”. Only 9 per cent of teachers in the Teacher Tapp poll said they had confidence in it. Most damning was the finding that only 9 per cent thought Ofsted had improved the education at their school. Even allowing for a natural underlying hostility to an inspectorate among a group of professionals, this is a completely unsustainable level of dysfunctionality.

The amount of stress generated by inspections was highlighted by the fact that 62 per cent of heads said that reforming Ofsted to be more supportive and less punitive would make the biggest difference to their morale, ahead of either workload or pay.

Dame Alison Peacock, the chief executive of the Chartered College of Teaching, told the commission that the hard work and dedication of teachers was being undermined by an education system that was not fit for purpose. “Teaching in 2021 is driven by a need for compliance. Teachers are constantly looking over their shoulder, whether it’s about Ofsted judgments, whether it’s about attainment, whether it’s about workload, teachers are being driven and we need teachers to be inspired. We need them to be joyful, we need them to love working with children. We need them to feel that the reason they come to work every day is because they can make a difference and that they can contribute to society.” She pointed out that even during the pandemic Amanda Spielman, the chief inspector, criticised schools that were handing out food parcels to hungry families instead of focusing purely on education. “To be a teacher is to care deeply about your students, and if you’re not in a position where you can enact things that make a difference, frustration builds, and I think that is the biggest reason for the high attrition rates from teaching. It’s not that teachers don’t want to work hard, it’s just that teachers need to feel recognised and they need to be appreciated, and they need to have the freedom to do what feels right, both academically for their children but also socially. Ofsted, frankly, it’s a reign of terror.”

Peacock explained why in her view teachers had lost faith in the inspectorate: “They come in, start to talk in highfalutin language about research outcomes and curriculum coherence … We need to be more confident as a profession. The issue with Ofsted is that they pretty much have a script and a set of things they have to follow. Even when they lead online training it’s all to the script because it will have been checked by Amanda. I think she thinks teachers ought to be … like robots and then we would all stick to the script and it would all be fine, and anybody who couldn’t control themselves would have to be chucked out. But that doesn’t work at scale.”

A whole industry has grown up of consultants, who charge a premium to advise schools on how to deal with Ofsted and even run “Mocksted” inspections. According to the EU, schools are spending more than £1.5 billion a year on “bought-in professional services”, including Ofsted consultants. Even last year, when schools were shut during the pandemic, the consultancy fees came to more than £1.3 billion. The chief inspector has warned them that they are wasting their money but the stakes are so high that many heads are desperate.

The culture of fear is driving out talented high-flyers. Ryan Wilson, author of Let That Be A Lesson, told the commission that he had wanted to be a teacher from the age of eight and spent ten years in the classroom but he quit in 2016 and is now a radio producer. “The bit in the classroom I loved, and a teacher from the age of eight and spent ten years...
There has to be a concerted effort to raise the status of teaching in this country and also make it more intellectually engaging. Teachers are not the problem in the education system, as they are sometimes treated by politicians as part of the solution. Becky Francis, chief executive of the government-backed research organisation the Education Endowment Foundation, said all the evidence showed that it was “quality teaching practice that makes the biggest difference to pupil progress, and that’s doubly true for disadvantaged students”.

The commission proposes that more professional development should be backed by revalidation every five years by a beefed up Chartered College of Teaching. This would mirror the certification process for doctors run by the General Medical Council and put an emphasis on excellence while ensuring that all teachers were up to date with new technology as well as developments in neuroscience and pedagogy.

The government has already increased the amount of on-the-job training available to teachers, which is welcome, but there is more to do. In Singapore and Shanghai teachers spend only half their working week in the classroom, leaving the rest of the time free to work with their colleagues, to frame good practice. Teachers are not just instructors, they’re also great mentors and facilitators. It is more about control than cash. In Estonia Liina Kersna, the education minister, told the commission: “We trust our teachers and our teachers have a lot of autonomy. We have moved away from controlling educational institutions to supporting education systems.” In Finland primary school teachers looked haggled when they were asked about inspection because there is no such thing.

There is a short flexible learning principle. Or there’s very little teacher input at all and it’s all about you trying to find information out and to work within groups.”

Ellicott has been working with 3D schools in Shanghai to boost creativity and he believes that it should be central to education in this country too. In China “there’s an understanding that those skills of creativity and innovation are a priority for education”, he said. “If you talk about a creative person, you’re not talking about a finger painter. The definition of creativity is doing things differently, thinking of creativity is doing something differently. Knowledge is important, but not as important as what you’re going to do with that knowledge.”

Teachers are “constantly rethinking” the approach to education. “There are going to be times when we’re going to set you to work to do before the lesson the flipped learning principle. Or there’s very little teacher input at all and it’s all about you trying to find information out and to work within groups.”

It helps them to become more rounded individuals and more resilient said. “The aim of this is to get students involved in things which are completely outside of their comfort zone.” Pupils can earn badges in personal development, which is taught for two hours a week, and classes on everything from financial literacy to the menopause. “Wellbeing is at the heart of that. The idea is that our programme helps students to become more rounded, more independent, more each other and to be more resilient,” Ellicott said. “It’s a coherent package that’s taught by specialist teachers rather than you add-on that a form teacher has to teach at registration.”

The idea that we would not want to promote creativity just seems slightly absurd to me. If we think of education as a linear experience that is only determined by your success at GCSEs and A-levels that’s a massive opportunity wasted.”
Teachers don’t move for money so the key thing is unlocking the talent of staff

Schools have turned into “Gordian knots”, according to a focus group of parents convened by the think tank Mumsnet. The promise of a broad and balanced curriculum has not been delivered.

Jade, whose son will be sitting GCSEs next year, said: “It just seems to be laborious and the same things every day. He’s back and forth to do his work, there doesn’t seem to be anything extracurricular.”

The commission heard evidence that the introduction of performance measures including the EBacc and Progress 8 have accelerated pressures on schools to help students to secure top grades in the traditional subjects, particularly academic subjects. The press, the breadth of the curriculum has been squeezed, pushing out creative subjects, practical work, sports, trips and extracurricular activities and hampering social justice. Teachers oversee the curriculum and training and professional development as the key drivers of success. They focus on a two-hour session on a Friday morning when they are feeling incredibly anxious about it, I do think it would be much better to have a mix.

Teacher retention

Proportion of full-time teachers in England leaving the profession for reasons other than retirement or death

Source: School Teachers’ Review Body

48% 40% 38% 32% 22% 19%

Source: Education support

46% 27% 19% 28%

40% 38% 32% 22% 19%

93% of heads in English state schools in 2019 were white British
TECHNOLOGY

TEACHING IN THE DIGITAL AGE

The pandemic lockdowns helped to illustrate how the fourth industrial revolution could transform the way schools operate in the 21st century.

At St John’s Church of England Primary School in Wigan, the children in year 6 are studying science. One pupil is learning about vitamins, another is looking at a diagram of muscles in the human arm and a third is being tested on tabulation. All the students are on iPads, with a personalised programme of lessons created by artificial intelligence (AI). The machine analyses their work, and then tailors the learning specifically to each child, allowing them to move at their own pace and fill in any gaps in their knowledge. There is an emoji button for them to press to show how they are feeling about what they are studying.

Each pupil has a ‘dashboard’ with tasks set either by the teacher or the AI, and a section telling them their strengths and areas for improvement. Children can follow their progress in spelling, grammar, maths or science on a graph. The teachers also have iPads which show in real time how each child is doing and what their progress has been over the term. The AI, developed by Century Tech, a British educational technology company, even tells them how long the pupils spent on each question and analyses their swipes and strokes.

Laura James, the principal at the school, a state primary in one of the most deprived parts of Britain, insists that the children do not spend the whole day staring “robotically” at a screen. They still write in work books and the school has a well-stocked library under its “hybrid” learning model but she said that AI had transformed the education in her school.

“It’s not a gimmick,” she told the commission. “It enhances the education. It’s like having a personal tutor for each child and the parents like it for that reason. For the children it’s really made a difference. There’s no wasted time. They can learn at any time and in any place.” Teacher morale has also increased because there is less marking and lesson preparation every week. “It’s helping the teacher to help the child.” Sharon Bruton, chief executive of the Quest multi-academy trust, which runs St John’s, said the impact on outcomes had been positive in all its five schools. “We have seen progress well above what we would previously have expected,” she said. One ten-year-old moved so fast through the maths curriculum that he ended up doing GCSE-level work.

Artificial intelligence, virtual reality, augmented reality and adaptive assessment are not the future of education, but a present-day reality for some. The most forward-looking schools, in this country and abroad, are already revolutionising the way they teach to take advantage of the latest technologies and prepare their students for the digital age. AI has radically altered the worlds of retail, travel and banking.

Now what Klaus Schwab, the World Economic Forum founder, calls the “fourth industrial revolution” is moving into education with implications for everything from the curriculum to exams. Sir Anthony Seldon, deputy chairman of the commission, believes “AI is the most transformative development for education since the printing press.” Carefully managed, technology could be the way of separating the circle and allowing the system to be redesigned at a time when there is no money.

The pandemic dramatically accelerated the digitalisation of education. When schools closed down and learning moved online almost overnight, teachers, pupils and parents adapted with remarkable speed. More than 1.8 million laptops and computers were distributed by the Department for Education (DfE). Oak National Academy, the government-funded online school that was set up in a matter of weeks at the start of the pandemic, now has 148 million lessons on its database covering virtually the whole national curriculum. So far pupils have taken part in nearly 148 million classes and during the lockdowns Oak had an average of 2.5 million users a week. Even after schools reopened, 170,000 pupils and 40,000 teachers were still logging in every seven days. There has also been a wider shift in how schools operate. According to a Teacher Tapp poll, more than half of teachers have switched to setting and collecting homework online.

The pioneers are moving on from remote Teams or Zoom lessons to personalised education enabled by AI. Unlike conventional digital technology, artificial intelligence is adaptive and adjusts to the individual so that pupils can learn when they want, where they want in the way that is perfectly tailored to them. In travel and banking.

Percentage of children who go online using the following devices, by region of the UK

<table>
<thead>
<tr>
<th>Region</th>
<th>Mobile phones</th>
<th>Tablet</th>
<th>Laptop</th>
</tr>
</thead>
<tbody>
<tr>
<td>England</td>
<td>72%</td>
<td>70%</td>
<td>47%</td>
</tr>
<tr>
<td>Scotland</td>
<td>74%</td>
<td>71%</td>
<td>44%</td>
</tr>
<tr>
<td>Wales</td>
<td>76%</td>
<td>64%</td>
<td>47%</td>
</tr>
<tr>
<td>Northern Ireland</td>
<td>68%</td>
<td>66%</td>
<td>38%</td>
</tr>
</tbody>
</table>

Source: Ofcom
At the Khan Lab Academy in Mountain View, California, the teaching assistants are pupils and the classes are mixed age. There are no grades or homework at this experimental private school set up in 2014 by Sal Khan, left, the founder of the online Khan Academy, to try new approaches to education in a physical campus.

Students move at their own pace, following an individual programme of online Khan Academy lessons, supported by teachers when needed. Under Khan’s “mastery” approach to learning, they must demonstrate that they have properly understood each topic before moving on, so that they do not end up with gaps in their knowledge.

The brightest can race through so quickly that they end up taking university courses but there is no shame or stigma in taking longer. Pupils work as tutors to each other and to children in other schools.

In the data science class, students aged between 14 and 18 sit at a long conference table analysing voter behaviour at the last US presidential election. The room is buzzing with chatter and the session is led by a pupil.

Learning from failure is encouraged, as are creativity, team work and entrepreneurialism. Several students have already set up their own businesses. Khan believes that the traditional classroom model, in which all pupils study the same thing at the same time, "simply doesn’t fit our changing needs. It’s a fundamentally passive way of learning."
correct order to fill in the gaps in their knowledge, then giving them feedback at any time of the day or night. That could mean helping children to catch up on lost learning so they do not fall behind, or allowing them to race ahead of the rest of the class so they do not get bored.

The idea is that by targeting the education at precisely the right level, AI turns students into active rather than passive learners, motivating them to want to deepen their knowledge by giving instant feedback. Teachers can be freed up to concentrate on the bit of the job they love best because the machine can do most of the marking and data collection. There are also potential benefits for children with special educational needs and disabilities from a machine that will allow pupils to dictate their answers and can turn text into audio files. Used properly, its proponents suggest, AI could simultaneously boost social mobility, raise standards, improve staff morale and save money.

They have their work cut out. The government’s AI Council, an independent advisory body, said that ministers should seize the opportunity to deepen their knowledge by giving instant feedback. Priya Lakhani, the founder of Century Tech and a member of the government’s AI Council, an independent advisory body, said that ministers should seize the opportunity to risk falling behind. “We have technology that will probably double for the rest of the world. It’s the time that has been lost to humanity.” He thought AI could be “the biggest event in the history of our civilisation”. There is an enormous opportunity to learn how to live in an age where machines are better than humans. Ofcom says that almost a million children can still access the internet only through a mobile phone and half a million have no internet access at all. About 9,000 schools lack a consistent broadband connection. One danger is that the existing disadvantage gap in education will be made worse by the digital divide. A reduction in social connection could fuel the mental health crisis in the young. There are also serious ethical issues to resolve. Artificial intelligence depends on accumulating huge amounts of data, which is controversial when it involves adults and even more so with children. Parents and politicians will rightly be concerned about how any data collected for educational purposes will be used. Clear guidelines and protections must be put in place to ensure that this valuable resource is not abused, by either tech companies or the state.

Someday schools will be using digital or augmented reality to bring lessons to life. At Anson Primary in Brent, northwest London, pupils scanned an app on their iPads and watched the rain from a Roman villa appear before them in the playground. They were able to move around the ruin, explore the walkways and look for artefacts. Back in the classroom, they wrote vividly about the ancient world they had discovered. “Learning was no longer abstract, but real, lived in their memory.” Simon Pils, the deputy head teacher said. He described how children as young as seven were able to construct their own version of the Great Hall from the epic poem Beowulf and walk around their creation as they heard the Anglo-Saxon work being read aloud. From sharks in the corridor, to volcanoes in the gym “anything is possible,” he explained, and the innovation was unlocking children’s curiosity with immersive, interactive learning. “We open their eyes to the possibility that there is more to life beyond their own front door.” Another app allows children to project 3D geometric shapes on the desk in front of them as they calculate angles in a triangle of geometry. Instead of writing in exercise books, some teachers now record video messages, which as they are quicker and more personal are extremely visual, as opposed to textual, in their instincts,” he said. “They learn that way. Their brains are becoming wired differently from the brains that I was brought up with at school. I think that’s one of the things we’re not fully appreciating, or necessarily taking advantage of. With the advent of AI and personalised learning, our ability to do things that were a dream in the 1990s has actually become possible.

The late Stephen Hawking once said: “Every aspect of our lives will be transformed . . . AI will be either the best or the worst thing that ever happened to humanity.” He thought AI could be “the biggest event in the history of our civilisation”. There is an enormous opportunity to learn how to live in an age where machines are better than humans. Ofcom says that almost a million children can still access the internet only through a mobile phone and half a million have no internet access at all. About 9,000 schools lack a consistent broadband connection. One danger is that the existing disadvantage gap in education will be made worse by the digital divide.

The curriculum is set up for knowledge not for problem-solving

Primary school with a (virtual) personal tutor for every student

Pupils at St John’s Church of England Primary School in Wigan have a personalised programme of lessons, created by artificial intelligence (AI). They can go at their own speed and work in the classroom or at home with iPads bought by the school.

That flexibility was invaluable during the pandemic, and the pupils love this new way of studying. Holly Graham, 10, sometimes spends three hours doing maths questions after school. “It’s definitely helped me with my learning,” she said.

Max Ode, 10 agreed. “The best thing about it is it challenges you to go further and faster,” he said. As in a computer game, there are competitions and incentives. Each child has their own “dashboard” with tasks set either by the teacher or the AI and a section telling them their strengths and areas for improvement. They can view their progress in every subject on a graph and also express how they feel about the lesson through an emoji button.

One boy who is working on grammar types shows a frustrated face. The AI will adjust the teaching to go over the material more slowly and make sure he understands the concepts before moving on to the next question. Teachers can monitor in real time what each pupil is doing and how they have developed over the term. The AI even tells them how long the pupils spent on each question and analyses the swipes and strokes used by the student. A scatter graph pupil progress indicates who needs more support and who would benefit from more stretching tasks. Laura James, the principal said: “It’s like having a personal tutor for each child.”
Many children still do not have good enough access to technology to be able to make the most of the educational opportunities.

Making Connections

the Raspberry Pi Foundation, an educational charity that has trained more than 30,000 teachers over the past four years, says children “are growing up in a world where everything is being transformed by this explosion: artificial intelligence, machine learning, robotics, computer vision, natural language processing. AI is transforming every corner of the economy and creating lots of amazing opportunities but those opportunities are not evenly distributed. One of the challenges is, how do we make sure — that this wave of technological innovation is a driver of social mobility, not a cause of greater inequality? Kids that are going to get help by some means or other, able to programme AI systems; it’s also about social and ethical issues. AI is … not just about something that sits inside computer science or advanced maths.

There are some foundations that must be put in place. Every child should have a data-enabled device, provided free to those who cannot afford to buy them. The laptop or tablet is the modern-day equivalent of a pencil and paper so this must be a universal resource, with schools given extra money if needed, to fund devices through the pupil premium mechanism. The DfE could help to identify suitable machines and arrange a collective purchasing or leasing arrangement to reduce cost. Young people, teachers and parents must also be able to access free educational services online, as happened for certain websites during the pandemic. The government should draw up a list of educational services that are exempt from data charges, which would then be automatically “zero-rated” by all networks on all provider plans: a digital version of the free 0800 number.

Makat Hood, principal of Oak National Academy, said the coronavirus crisis had shown that technology was an essential educational tool. “If you’d asked me before the pandemic, did I think that a good use of scarce resources in our education system was to provide a device and the associated data to every pupil, I think I would have been firmly on the side of no. I’ve changed my mind over the pandemic. I believe that we have passed a tipping point where access to education through a device and the associated data is now critical. In places like sub-Saharan Africa, the conversation is about how we improve access to education, particularly for girls. We are not used to having a conversation about access to education in the fifth, sixth richest country in the world, and we need to get a little bit more used to having that conversation. I don’t think it is credible to say that you can access education on the same terms as everywhere else. In 2022, post-pandemic, with the shifts that have been, if you don’t have an internet-enabled laptop device.”

The government has asked the Education Endowment Foundation to assess the impact of AI platforms and as the evidence emerges schools should be encouraged to capitalise on the most effective innovations to personalise learning for their pupils and reduce teacher workload. A flagship Technology Academy should be set up to test innovations in education, AI and virtual reality. One had been proposed as a free school, but stalled: it needs to be revived. Digital skills should be a core element of teacher training, both for new teachers and as part of continuing professional development for existing ones. When software programmers and AI experts can earn

ten times as much in industry as in education, the system needs to make sure that its own workforce is equipped to hand on these essential skills.

Exams must very rapidly evolve. Pearson, which owns the EdExcel exam board, has already introduced its first on-screen GCSE in computer science. Its Pearson Test for English, used to assess international students and immigrants applying for a visa, is conducted entirely online and assessed by AI, with results delivered within 48 hours. Sharon Hague, managing director of Pearson school qualifications, said the technology existed to move GCSEs and A-levels online almost straight away. “We could take the model we currently have and say everyone sits in an exam hall on a lap top instead of with a pen and paper, but is that really making the most of the opportunity the technology gives you?” she said. “We need to think about the work they are going to be living and working in — what are the knowledge and skills that are going to be really important? — then ask, how do we best assess that?” Eventually AI will allow for more accurate continuous assessment, with teachers able to monitor their pupils’ progress without making them sit a test.

There will need to be changes to the curriculum. “To switch a light on, I do not need to know about electricity, voltage or power stations and yet we do teach our children about natural science so that they can understand something about the world that surrounds them,” the computer scientist Simon Peyton Jones said. “It’s the same with computers. The digital world surrounds us, if anything, in a more pervasive and invasive way, and if we want our children to be the masters of technology and not its slaves, they need to understand something — perhaps at an elementary level — about the way things work.”

Digital skills cannot be boxed into a computer coding class; they must be woven through the whole education system just as technology is integrated into our lives. Tathgara Goldstaub, the tech entrepreneur who heads the AI Council, insisted that the world was changing so fast that adaptability was now as crucial as algebra. “The curriculum is set up for knowledge not for problem-solving, which is what we need our children to be able to understand so that when they leave school [they are prepared for] the jobs that will be there, which are unpredictable,” she said. “Even the kids who were at school two years ago wouldn’t have known about NFTs [non-fungible tokens] and suddenly there are now people making millions from NFT art. The human skills that we don’t see machines taking are things like empathy, understanding, problem-solving, team-work.”

Children need the intellectual as well as the practical tools to navigate the brave new world. Jimmy Wales, the founder of Wikipedia, argued that the digital age had transformed the way in which knowledge is acquired, which meant rethinking education. “There’s the old model, which is very broadcast, top-down — you receive wisdom from the elders who wrote it down in books for you — whereas Wikipedia is a much more interactive and engaging experience,” he said. “Forty years ago the range of information available to students was quite narrow: you could go to the library and you could get newspapers, magazines, books. Now everyone has instant access to everything, include crazy conspiracy theory nonsense. We should elevate information literacy skills to be very high, not just. ‘Here’s the facts and learn them’: it’s, ‘Here’s how you can critically judge the information.’

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Livingston told the commission that education needed to feel relevant to a generation that has grown up playing games. "We are all العبّر games," he said. "In a safe environment. You can all learn at different levels. "AI could be acting as a sort of invisible friend for every student that is tracking heart rate, various biological forms of data, neural data, behavioural data. That, all coming to the fore as being possible, but it's very intrusive."

One Chinese primary school made children wear but put it in manufacturing. The government was focusing on the principles of games-based learning to have a more contextualised applied experience," he said. "Computers will only ever be part of the solution. Having studied the best education systems in the world, Andreas Schleicher said the human dimension would always be crucial. "Technology can make learning more interactive; more granular; more adaptive to different learning styles, more intriguing but it's not a magic power. It depends on the teacher. Teachers can amplify great teaching but it will not replace poor teaching. Education is not a transactional business. It's a social and relational enterprise so great teachers and great technology, that's the right combination."

But the world is changing and schools, colleges and universities have to keep up. Other countries are racing ahead of the UK when it comes to using technology in education for its digital innovation, most exams are already held online. Pupils study robotics from the age of 7 and use virtual reality to learn about their geography classes or London in their English lessons. In Finland media literacy, including the ability to spot fake news, is a key part of the national curriculum. In Uruguay some of the poorest families now have more laptops than beds after the government introduced a scheme to give a device to every child. China is providing AI across the country for teaching and assessment as well as adapting its curriculum to cover the new technologies. When head teachers visited Shanghai in 2019 for a conference of the International Confederation of Principals, shortly before the earliest cases of the coronavirus emerged in Wuhan, the first item on the agenda was the role of artificial intelligence in education and the keynote speech was delivered by Jack Ma, founder of the technology conglomerate the Alibaba Group.

In the United States 95 per cent of teachers and pupils have a laptop or tablet provided by the school, compared with 35 per cent in the UK. Steve Jobs famously described the computer as "a bicycle for the mind" that gets you where you want to go faster and lets you explore. The tech entrepreneur Brent Hoberman, founder of lastminute.com and made.com, has set up a post-18 coding college 01 Founders that has no teachers, no classrooms, no tuition fees and a guaranteed job for all its graduates. The application process is a computer game. Exam questions are set with everything, they want agency, they want control, they want their entertainmen to be interactive. And yet, their learning process is still a linear experience. The gamification of learning is going to really change the way the world learns, and I just hope the UK education system understands that this world has been transformed by technology and we have to be at the forefront of that driving the agenda rather than being lame passengers at the back of it."

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The pace of change will only accelerate over the next five years. A non-violent version of Assassin’s Creed, one of the highest-selling video game franchises, has been developed as an educational tool based on the Viking conquest in 9th-century England. The entrepreneur Sir Ian Livingstone, the founder of Games Workshop and creator of Tomb Raider, is taking it a step further with a school that has a curriculum built on the same principles as video games. Pupils at the Livingstone School in Bournemouth are set challenges and work together to complete their missions. "I’m not talking about coding or playing games all day long, but using the principles of games-based learning to have a more contextualised applied experience," he said. "Computers will only ever be part of the solution. Having studied the best education systems in the world, Andreas Schleicher said the human dimension would always be crucial. "Technology can make learning more interactive; more granular; more adaptive to different learning styles, more intriguing but it’s not a magic power. It depends on the teacher. Teachers can amplify great teaching but it will not replace poor teaching. Education is not a transactional business. It’s a social and relational enterprise so great teachers and great technology, that’s the right combination."

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Children are splashing in the sea and surfing to the shore while seagulls circle. It looks like an idyllic summer holiday scene in Cornwall but in fact these 10-year-olds are at school. They are part of an innovative project that uses surfing to re-engage pupils who are struggling with mainstream education.

At the Beach School, run by a charity called The Wave Project, the children wear wetsuits instead of school uniform. Their teacher is a lifeguard, the teaching assistant is a surf instructor and in their natural playground they have rocks to climb on.

These pupils are, however, following a meticulously planned academic course with lessons that draw on the coastal setting. They learn physics by measuring the speed of waves and geography by studying the ebb and flow of tides. They study biology by examining the ecosystem of rock pools and maths by following the coordinates of painted stones hidden on the beach.

The art class involves drawing with rakes on the sand to emulate the work of Cornish artists and English might be based around surfing mythology.

The Beach School runs six-week courses for small groups of children aged between 5 and 16 who are referred by their normal school and spend one day a week on the surfing programme.

“The classroom is the beach,” said Jason Wood, their teacher, who worked as a deputy head in a state school before joining the Wave Project.
 There’s a huge amount of fear in children about the future

A third of girls aged 16 to 18 have self-harmed and the kind of emotional mental health disorder. Nearly a third of the nation’s young people have problems, the highest on record. The number of young people in England with a “probable mental health disorder” rose from one in nine before the pandemic to one in six last year. Half of adult mental health problems emerge before the age of 14 and three quarters before the age of 24, so this is an immediate crisis with long-term consequences. When Rachel de Souza, the children’s commissioner for England, visited a secondary school in Altrincham, outside Manchester, she was alarmed at how many children from one of the commission’s youth panel meetings. Every single member of the older groups (aged between 11 and 21) had either struggled with their own mental health or had a close friend with problems. One teenager talked of his depression, another described how her best friend had felt suicidal. Several discussed the difficulty of getting professional help. “I would have appreciated the help of a counsellor but they predicted an eight-month wait for an eight-week maximum treatment,” said Ana Nicole, 20, who is in her second year at Lancaster University.

Felix came to take his own life at the age of 17 having suffered years of bullying that followed him from the playground into his bedroom at night on his phone. “His perspective was never really recognised, all the issues that he had, going through school, were very much labelled as his fault.” She insisted that there had to be more support for young people. “I talked to a headmaster of an inner city London school who has huge pressures, financially, and I said, ‘How can you afford it?’ and he said, ‘I can’t afford not to have it.’ ”

The latest NHS figures show that more than 420,000 children are being treated for mental health problems, the highest on record. The number of young people in England with a “probable mental health disorder” rose from one in nine before the pandemic to one in six last year. Half of adult mental health problems emerge before the age of 14 and three quarters before the age of 24, so this is an immediate crisis with long-term consequences. When Rachel de Souza, the children’s commissioner for England, conducted the biggest survey of the nation’s young people last year, it was their mental health that alarmed her most. “The children I’ve been meeting in a variety of schools are talking about anxiety,” she explained when the commission joined her on a visit to Jane Austen College in Norwich as part of her national tour. “They describe feelings of isolation, some feelings of hopelessness. That’s right across the ages and right across the country. It’s even more marked than I expected. There’s a genuine need we have to address.”

The impact on young lives is profound. Between April and October last year, there was a 77 per cent rise in the number of children needing specialist treatment for severe mental health crises such as suicidal thoughts and self-harm. Hospital admissions for people with eating disorders have risen by 84 per cent over the past five years in England, the biggest increases being in those under 18. According to the Coalition for Youth Mental Health in Schools, by the age of 17 nearly a quarter of young women have some kind of emotional mental health disorder. Nearly a third of girls aged 16 to 18 have self-harmed and the rate of hospitalisation as a result of self-harm has doubled among 9 to 12-year-olds over the past six years.

There’s much we can do. The Children’s Society’s annual survey of young people has found that children’s wellbeing has been falling since 2009. More than 300,000 10 to 15-year-olds in the UK are unhappy with their lives, almost double the number a decade ago. One in seven girls and one in eight boys are dissatisfied with how they look, feel and think. Between 2006 and 2016, the number of suicides among 10 to 24-year-olds rose by 36 per cent. Suicide is the Greatest London school who has huge pressures, financially, and I said, ‘How can you afford it?’ and he said, ‘I can’t afford not to have it.’ ”

Young people need more than just the education system to help them. “Our education system is so late in providing help in schools,” she said. “What we are saying is that our education system has to address.”

The commission has appreciated the help of a counsellor but they predicted an eight-month wait for an eight-week maximum treatment, said Sobiya Patel, 15, from Dewsbury in Yorkshire. “So many people suffer inside and don’t let anyone know, it just makes it worse than it is.”

The public’s levels of anxiety about the future in children have increased and this is a cause for concern. The latest NHS figures show that more than 420,000 children are being treated for mental health problems, the highest on record. The number of young people in England with a “probable mental health disorder” rose from one in nine before the pandemic to one in six last year. Half of adult mental health problems emerge before the age of 14 and three quarters before the age of 24, so this is an immediate crisis with long-term consequences. When Rachel de Souza, the children’s commissioner for England, conducted the biggest survey of the nation’s young people last year, it was their mental health that alarmed her most. “The children I’ve been meeting in a variety of schools are talking about anxiety,” she explained when the commission joined her on a visit to Jane Austen College in Norwich as part of her national tour. “They describe feelings of isolation, some feelings of hopelessness. That’s right across the ages and right across the country. It’s even more marked than I expected. There’s a genuine need we have to address.”

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Head teachers report that alongside these acute cases there are many more lower-level problems, with pupils increasingly anxious about issues such as climate change and inequality. Children from the poorest 20 per cent of households are four times more likely to have a mental health disorder than those from the wealthiest 20 per cent. Bernadka Dubicka, a child psychiatrist, told the commission that she and other practitioners had seen “a surge in crisis presentations, including self-harm,” over the pandemic. “Since lockdown there have been quite a few young people with psychotic experiences, things like hearing voices that are really distressing.” She said this should be an opportunity to “rethink” the education system. “If you don’t have a happy child you’re not going to have a thriving child who’s going to do well academically or otherwise. Wellbeing has to be central to the way we teach our children.”

The evidence suggests that they are being let down
The number of Agora schools in the Netherlands: 12

The approach has struck a chord with parents in the Netherlands, where happiness is valued as much as academic outcomes. The Roermond campus opened in 2014 with 30 pupils as an experiment within another more conventional school. It has since expanded to 295 students and has a long waiting list. There are now 12 Agoras in all.

Agora, a non-selective state secondary in a suburb of Roermond, has no classrooms, no timetables, no year groups and no curriculum. Pupils decide what they want to study and all the learning is done through individual projects that involve making things, meeting specialists or going on expeditions.

Rob Houben, the manager who is the closest thing Agora has to a head, said the school was a combination of a university, where all knowledge is within reach, a Buddhist monastery, where pupils can discover what matters in life, a theme park, where students can have fun, and a marketplace.

In Ancient Greece, the “agora” was the commercial, social and political centre of the town. “We start with you,” says the school. “What do you want to learn? What are your talents, interests and ambition?”

In the past five years, projects have included students building a skateboard, baking cakes, training for a swimming gala and studying the Harry Potter patronuses and the Ancient Egyptian pharaohs. The priority is to engage students and make them curious. “We need to put a lot of knowledge in these kids, but if we attach it to a trigger, then it sticks,” Houben said.

CASE STUDY

The school with no rules, no timetable and no classrooms

Outside the Agora school in the Netherlands, teenagers clamber over a car. They jump on the bumper, pop the bonnet, reach for the horn and open the boot. Music is blaring as they tear out the seats of the Chrysler Voyager.

The science teacher, Frank Neiss, has set his pupils the challenge of transforming the people carrier into a camper van. They will spend the next six months learning about voltages, velocity and aerodynamics as well as carpentry, plumbing and design. That will be their way of studying maths, chemistry, physics and art. “It will be a great project,” Neiss said. “Then, next summer, I will go on holiday in the van with my wife.”

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young people. ‘It’s much more complex than that.” The OECD says that a little internet use can have a “small positive impact” on children and young people’s wellbeing, but the two extremes of not being online at all and excessive use can have a “small negative impact.”

Some experts offer a more subtle explanation. Young people, they suggest, feel disempowered by the world around them and the education system is doing too little to help them to regain a sense of control. The BeeWell survey found a significant correlation between respondents feeling that they had autonomy and their self-reported positive wellbeing. This chimes with the American psychologist Martin Seligman’s theory of ‘learned helplessness’.

In experiments on dogs in the 1960s one group was taught to avoid an electric shock by pressing a lever; another had no way of controlling the current. The animals were placed in a box that was divided by a low wall with the floor electrified on one side. The ones that had learnt to avoid the shock quickly realised that they could jump over the barrier to get away from the electrified floor but those that had not been trained to stop the pain just lay down and whimpered. Seligman found that humans are also susceptible to learnt helplessness and drew a link between that and depression. He concluded, however, that they could also be taught optimism and be empowered “not through mindless devices like whistling a happy tune or mouthing platitudes … but by learning a new set of cognitive skills”, which he called positive psychology.

The more gender-equal a country is the larger the gender gap [in mental health]
J

that this would cost £40 million a year but the price
tag could be reduced if some of the counselling
were delivered online. In Wales, the SilverCloud
services are a digital counselling platform that is
designed to be offered online and this provision
would be a good alternative to in-person
counselling, and certainly better than nothing.

counsellor Rosemary Farley at Place2Be, a children's mental health charity that works in schools,
said: "Getting in early means we start helping before
problems become entrenched. And we know that one
to-one counselling offered by Place2Be concluded that
every £1 spent leads to £2.60 saving.

Teachers, who are often the first to spot an emerging
mental health problem, also need more support.

There should be annual mental health training for all
teachers, just as there is a mandatory training for
child protection. A survey by the Coalition for Youth Mental Health in Schools
found that 76 per cent of teachers did not receive
any lessons on how to support their students' mental
health during their initial teacher training. And the ex-
cent thought that mental health training should be
refreshed every year.

These are all necessary measures to deal with the
immediate crisis and save lives but the real aim
should be to stop children reaching the crisis point
that makes them need professional help. There must
be a shift towards prevention rather than cure, with
more emphasis placed on helping the emotional
resilience of young people so they can cope with
life.

Fascinating results and has already started informing
policy and local community action. The government
should undertake a wellbeing survey nationally,
throughout the country, to get a measurement of young people's wellbeing across the

This would focus attention on the importance of
not just little nice-to-have extras. Kids need those
opportunities and environments that increase their
social connectivity. It works for individuals — we should be spending on
mental health, 58 per cent saying that the pandemic
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Under the canvas of a yurt, children are learning about biodiversity. A boy whizzes around the garden on a scooter. This is Liberty Woodland School, Britain's first fully outdoor school. The private primary in southwest London teaches all its lessons in the tree-lined grounds of Morden Lodge, a Georgian National Trust property.

A maths lesson has been going on in the greenhouse; lunch is served at long wooden tables outside and children have planted circles of bulbs so that their class can sit cross-legged surrounded by flowers. The pupils are now choosing which animals to get for the animal shed.

Rain or cold are no obstacle to learning because the school has brought outerwear from Scandinavia. "Those cold days are a great way to build resilience," Leanna Barrett, the headteacher, said. "The freedom they get from being outside means it doesn’t matter what the weather is."

The school "tracks" the national curriculum, so children cover most of the topics they would learn in a traditional school but there is an emphasis on "emotional intelligence and self-awareness" as well as academic outcomes.

"The country is in a mental health epidemic, you can’t bury your head in the sand... I think the connection with positive mental health and spending time in nature is irrefutable."

There are seven outdoor nurseries linked to the school and a secondary is opening in September.
No school is an island: whether it be a rural state primary or a world-famous alma mater of prime ministers, its influence will stretch far beyond the school gates. When the Oasis Academy South Bank was set up nine years ago, one in six of the children leaving the local primary school ended up in the criminal justice system. Half had been excluded from their London South and many got sucked into gangs. Now a third of those children who came from the Oasis sixth form have gone on to good universities and last year a tenth had offers from Oxford or Cambridge. It is an astonishing turn around in the fortunes of a cohort drawn from one of the toughest council estates in the country, which has high levels of poverty and knife crime.

A recent success, said Steve Chalk, the chief executive of the Oasis Charitable Trust, is “caring for the whole child” and understanding the complexities of the challenges they are growing up. Almost all the pupils are on free school meals, a measure of deprivation. One student saw a dead body fall from the building situated outside their ground floor, and there is a food bank attached to the school as well as an advice centre for families to help with housing, benefits, debt, parenting and immigration problems.

Teachers can choose to contribute a percentage of their salary to a hardship fund that is used to buy furniture or equipment for families. One pupil was sharing a bed with three siblings so the school used the fund to buy the family an extra bed. Eight youth workers are employed to work with pupils who are at risk of exclusions or getting dragged into gangs. If students play truant they are visited at home and if necessary members of staff are deployed to the A&E department at St Thomas’ Hospital to help children who come in with stab wounds to turn around. There is even a therapeutic farm, where pupils who are struggling in class can spend a couple of hours a week talking to an adult while feeding the goats. The community action is funded by charitable donations, as well as fundraising ventures including a cafe attached to the school. Chalk, a Conservative, told the commission: “The school is the bridge to the community, it’s the doorway, it’s a place that’s shared. It’s a link between these children at home and in their schools.”

Schools cannot operate as silos because addressed the social challenges children face at home has the potential to transform educational outcomes. The charity Magic Breakfast, which works with more than a thousand school settings to offer free breakfasts to more than 200,000 children a day, showed that having breakfast can boost attainment for primary school pupils by two months over the course of a year. Pupil’s concentration and behaviour improved and school absences and all-pupil break time attendance fell.

Yet a fifth of schools in the UK have no breakfast provision. In England present funding reaches only a quarter of children in the most deprived schools and 27 million disadvantaged children (74 per cent) could be missing out on breakfast. In Scotland it is 250,000 (58 per cent) and in Northern Ireland 50,000 (50 per cent). In Wales, breakfast provision is not reaching 85 per cent of disadvantaged pupils. There appears to be little research on the importance of encouraging pupils’ engagement with the learning environment — private and state, grammar and faith — would be established for all pupils at 14 to foster community spirit.

The community has to use the facilities, otherwise what’s the point in having them? The community has to use these facilities, otherwise what’s the point of having them? Music is something that we’re going to let people who will want to consume it in the town when they’re older. We want to tie those children into those services as young as meeting pupils who have nowhere to go to access the education that we would want them to. But more recently we’ve started and campaigns to try to get those children into the community activity into its curriculum. The 7-year-olds recently ran a campaign on pests in social housing. They were looking at the council that the government’s new family provision is something that if we invest in early then we’re going to get people who will want to consume it in the town when they’re older. We want to tie those children into those services as young as five.

Louisa Mitchell, the chief executive, said the key was to drive collaboration across the public services and tie in the work, trying to reach the most unequal community in England. All over this zone there are children who have an £100 in the wider role schools play. “We all say ‘Don’t waste the community’s savings were already coming through. “The costs of failure are absolutely astronomical. The costs of crime, both from a policing resource, the costs to victims, the courts, jury service, prisons, probation, everything is so huge, we know a lot of it is avoidable. We really think the time has come to make a positive social or economic contribution. It’s not going to solve itself on its own with academics.”

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CASE STUDY

Eton: 800 years old but with its eyes set firmly on the future

Eton College, according to Simon Henderson, the head teacher, is the opposite of a snake: "A snake sheds its skin and stays the same on the inside. Eton stays the same on the outside – we have our quirky uniform, funny language and historic buildings – but we're constantly re-inventing ourselves on the inside."

Boys dress in tail coats and stiff wing-collared shirts scuttle along cobbled streets to lessons at that £45,000-a-year boarding school that has produced 20 prime ministers. Etonians still call their teachers "beaks" and play the wall game. But tucked under the arm of each immaculately-dressed pupil is an iPad. Eton boasts on its website that it has been "educating for the future since 1440" and technology is integral to the teaching at the school. During the pandemic, Eton started offering online courses to students across Britain through its EtonX platform. Last year the school also signed a partnership agreement with Star Academies to open three selective state sixth forms in deprived areas. Eton is highly competitive and pupils are ranked on the basis of their performance in each subject, although the announcement of the GTF (the "General Total Failure") who had come bottom of the overall list, has been abolished since Boris Johnson was there. Henderson insists, however, that exams are not the main priority of an Eton education.

Children are encouraged to follow their passions in and out of the classroom. One parent says Eton is "more like a university than a school". The teaching style is discursive and there are more than seventy pupil-led societies offering everything from football to philosophy and board games to bird-watching. There are 53 instrument ensembles, a resident artist, and a rowing lake. Eton has an entire block devoted to art, design and technology, as well as a debating chamber, a theatre and a Natural History Museum with 16,000 biological specimens.

"We take the view that the boys learn as much, if not more, outside the academic arena, and they learn as much, if not more, from each other as they do from the adults," Henderson said. Independence and leadership are encouraged from an early age and "public service" is integral to the ethos of the school, according to the head.

for people from different backgrounds that would strengthen democracy and build connections. "In moments of transition we tend to be more open to the idea of connecting with people who are slightly different, because our own identity is slightly in flux."

The government's evaluation of the NCS programme found that it had a "statistically significant positive impact across many of the social cohesion measures" and participation levels of social trust and widened social circles. The scheme also boosted wellbeing, team work and self confidence and the findings showed a "positive picture regarding social mobility". A universal programme would cost about £500 million a year.

There are benefits to young people's mental and physical health from spending time in the natural world. Forest schooling, which involves children spending time in the open air, climbing trees or building fires, is increasingly popular in the UK, with many schools now offering it as a regular part of teaching. Schools should be leading the way in reconnecting children with the environment as well as understanding the impact of climate change. Sir Michael Morpurgo's Farms For City Children has been running for 40 years and allows inner-city children to spend a week in the countryside. "We have this huge facility out there of the countryside and it's not used," Morpurgo said. "It's the enriching of lives that seems to me to be so important from an early age. And if you can add the mixing of children from very different backgrounds, not just from within a school, that would be even better."

The Times commissioner Lord Rees of Ludlow, the Astronomer Royal, said it was sad that children in cities "never see a bird's nest or a dark sky. Schools ought to try and help with this." They should aim

£500m
Estimated cost
of a universal citizenship scheme

to make people feel more at home in the world, to understand nature and to understand how things work."

Schools must also have more to do with the businesses in their community. In Estonia, entrepreneurship is a core strand of the curriculum but in this country the education system does little to foster that innovative spirit. Lord Bilimoria lamented the "lack of interaction" between education and business. He would like to see "at least one field visit a year, at least one speaker coming into schools from business and that's going to help them when they get
Padiham Harkin, the founder of Shillindoe, works as an "entrepreneur in residence" in schools, running projects with children from four to sixteen. "If we want to create world-class products and services in the next twenty years then we've got to start young," he told the commission. "We have a lot of people thinking about how to talk to a child about entrepreneurship when they're fifteen or sixteen but you've got to start talking to them when they're three, four or five to get them excited about this idea. If you ask a five-year-old, 'How do you make a fridge better?' you get some amazing ideas. How technology has transformed the opportunities for improving links between education and employment. "It doesn't matter where you are if there's a webcam in the classroom you can work with a partner to do something," he continued. "The future of education will be a lot more connected. It's all about getting that share of the outside world to get to children and make them feel part of something."

"Technology has the potential to play a role in every part of a child's life," he said. "You can have a virtual experience of the Eiffel Tower, for example. The technology is there."

"Children need to know how to spend their own money," he added. "They need to know how to find a worm, a beetle and an ant, or build a chair out of newspaper."

But Harkin also believes that the future workforce is going to need to be better qualified. "We need people understanding that the premium to go to some private schools is going to be competing against an ever-larger pool, because there are more and more students coming from state schools who are seeing a potential place for themselves at Cambridge or Oxford or other Russell University," he said. "And that's what I think we need to encourage... we are seeing happen already is people understanding that the premium to go to some schools may not be as significant as it once was."

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**Table: Estimated cost of sending two children to private school**

<table>
<thead>
<tr>
<th>Year</th>
<th>Private school fees minus bursaries</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>£18,000</td>
</tr>
<tr>
<td>2005</td>
<td>£20,000</td>
</tr>
<tr>
<td>2010</td>
<td>£25,000</td>
</tr>
<tr>
<td>2015</td>
<td>£30,000</td>
</tr>
<tr>
<td>2020</td>
<td>£35,000</td>
</tr>
</tbody>
</table>

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**Chart: Private school spending per pupil compared with average private school fees**

- **Private school fees**
- **Average private school fees**

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**Figure: widening gap**

- **State school spending per pupil compared with average private school fees**

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**Note:** The government's target for all schools to become academies by 2030 creates an opportunity for much greater collaboration between state and independent schools. Many more private schools should join multi- academy trusts, which creates an opportunity for much greater collaboration between state and independent schools. Many more private schools should join multi- academy trusts, which creates an opportunity for much greater collaboration between state and independent schools.
About 1.4 million state pupils are judged to have special educational needs but that designation covers a wide range of conditions that the system cannot adequately address.

At school Sir Richard Branson would sit at the back of the class “doing my own thing”, baffled by the lessons. “I was a dyslexic school kid who had very little understanding about what we were being taught and what was going on on the blackboard,” the businessman told the commission. When he left school at 15 his head teacher told him he would end up either a millionaire or in prison, which turned out to be accurate. Looking back on his career, and the fortune it has made him, Branson reflected that he would still be considered a failure by what he called a “one-size-fits-all” education system that defines success purely in academic terms. Yet he is convinced that the dyslexia that held him back at school has been an advantage in business. “I think by being dyslexic, I learnt to become a good delegator, which is a really important thing in life if you’re becoming an entrepreneur and building businesses. I think I’m more creative at certain things. If [dyslexics] are able to concentrate on things they’re good at, they will really excel at them.”

Getting letters in the right order is, by contrast, “so unimportant really,” he said. Cressida Cowell, the children’s laureate, could not spell her name at 7 writing “Cressida” instead of “Cressida”, but she channelled her creativity into amazing dragon stories with no punctuation and lots of elaborate drawings that became bestselling books and films. Albert Einstein learnt to read late and said he thought in “images and pictures not words”. Greta Thunberg describes her Asperger’s as a “superpower” which are responsible for deciding which pupils should be considered a failure by what he called a “one-size-fits-all” education system in England, 16 per cent of the total, have special educational needs. That covers a huge range of difficulties and conditions, from mild dyslexia to serious disabilities. The number of pupils with an Education, Health and Care Plan (EHCP), those who require the greatest support, has increased in recent years from 2.8 per cent of pupils in 2016 to 3.7 per cent last year. The high needs budget, which funds these places, has risen by more than 40 per cent over three years and will total more than £19 billion this year. This has created enormous financial pressure in local authorities that are already struggling with wider budget cuts. Two thirds of councils have deficits in their dedicated schools grant budgets as a result of high needs cost pressures and last year the national total deficit was more than £1 billion. When a place in a special school can cost as much as £150,000 a year, there is a clear conflict of interest for local authorities, which are responsible for deciding which pupils should get support, but also have a motive to drive down spending.

The perverse incentives mean that the system is failing too many families, with often heart-breaking consequences for children and parents. During the pandemic 68 per cent of parents reported that their child’s needs were “not met at all” or only “somewhat met” in accordance with their EHCP. The government’s own special educational needs and disabilities (SEND) review, published in March, admitted that children too often “feel unsupported” and parents “are navigating an adversarial system and face difficulty and delay in accessing support for their child”. There is a postcode lottery of provision and the system is overly complex and bureaucratic. Despite the heavy emotional and financial cost of going to court, the number of tribunals has risen steadily. Last year 96 per cent of the cases were found in favour of the parent or carer: an indication that something is going seriously wrong. Many families pour their savings into legal challenges to get their children the support to which they are entitled. According to a survey by Let Us Learn Too, one in ten spent between £50,000 and £100,000 on the tribunal process. Forty per cent of parents said that a case had wiped out their savings, 5 per cent had to remortgage their home to pay for the costs and another 5 per cent had to sell their house and downsize. More than 60 per cent said that the battle to get the right education for their child had left them with long-term financial problems. This legal route is not available to those without the resources to go to court, which means that many disadvantaged children are left with inadequate support.

Meanwhile, local authorities have spent more than £250 million fighting parents at SEND tribunals since 2014, money that could have been better spent on getting pupils the right education. Matt Keer, who writes for the Special Needs Jungle blog, has spent...
A teenage boy is punching his teacher as hard as he can, jabbing left and right. In any other school this would be a disciplinary offence but it is part of the education at the Boxing Academy, an alternative provision free school in Hackney, east London.

All students have a daily bout in the ring, between English, maths and science lessons, as well as regular fitness training. In the classrooms boxing coaches work alongside academic staff to maintain discipline. Many of the pupils have been excluded from mainstream education for violence, some are on the fringes of gangs or have been caught up in the wave of knife crime that has hit the capital, but here they learn to channel their aggression into boxing.

Staff become therapists and even medics as well as educators. One pupil arrived at school with a knife wound in his leg, having been stabbed on the way to school.

The school has capacity for 40 pupils and more than a third have special educational needs. Anna Cain, the principal, said alternative provision such as the Boxing Academy was often picking up the pieces for a "one-size-fits-all" education system that did not cater for all pupils. "We expect every child to go through mainstream and either fit in or get dumped," she said.

**CASE STUDY**

A few rounds in the ring is just the thing between English and maths...
20 years battling the system. He told the commission: “I’ve got two deaf children. They’re brighter than I am, they work harder than I do, more determined than I am. The outcomes from their experience will ultimately have been good, but that’s not, frankly, the way that it would have turned out if the system had worked its way. One is at university, one is doing his National 5, so he is finishing his A-levels but the options that the system had in mind ...”

The government’s green paper set out proposals for reform of the system and included some sensible and pragmatic ideas but it has been widely welcomed — although the conflict of interest for local authorities has not been resolved and there is a question mark over whether the increased funding will be sufficient to fill the pledge to create a level playing field for families around the country. Some parents are also worried that the proposal for a tailored list of school policies is still too wide, with no sign of how parents with varying financial and time resources can advocate for their kids.

Essie Hewston, deputy money editor for The Times, spent more than £300,000 in legal fees to get an appropriate secondary school place for her autistic son, Ellis. “My experience as a parent was feeling gaslit by the school, by the local authority and by the council speech and language therapists, who were telling me there was no problem. The whole process is the same metric, which creates a damaging mismatch and huge inefficiencies. Tom Rees, executive director of Ambition: Autism, told the commission that there was “a huge mismatch between the qualifications or life skills they need to get doing whatever they would rather they were doing than the school. The philosophy of the school is: “There are no special needs. There are only children and they are all equal”, she explained. “We’ve got loads of autistic children and none of them are anything like me and I don’t want to be.” The system is the local authority trying to tell you that what you are saying is happening is not happening. Even when I was getting my son diagnosed, I was told he wasn’t autistic, he had an attachment disorder, it was my bad parenting that was at fault.”

Parents themselves are also too often left with a feeling that they are failures. Robyn Steward, who gives SEND training to schools, is autistic and has nine other disabilities. She left school with no GCSEs and told the commission: “The education system is probably great if you want to be a lawyer or a doctor but I honestly feel like my home schooling years were a waste of time. It was quite traumatising with the bullying and also very overwhelming ... I think schools are really not prepared to work so hard because the system has changed.”

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There are more than 50,000 pupils in England in alternative provision for excluded pupils. These are the third children that have gone through the commission’s inquiry. It is another manifestation of the culture that our third children are being written off and branded by FE colleges. Children are expelled according to the same metric, which creates a damaging mismatch and huge inefficiencies. Tom Rees, executive director of Ambition: Autism, told the commission that there was “a huge mismatch between the qualifications or life skills they need to get doing whatever they would rather they were doing than the school. The philosophy of the school is: “There are no special needs. There are only children and they are all equal”, she explained. “We’ve got loads of autistic children and none of them are anything like me and I don’t want to be.”

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be the case.” Alongside the exclusions and the murky unofficial off-rolling, there are children who are just disappearing. Last year the Centre for Social Justice suggested that 93,500 so-called “ghost children” were missing entirely from the school system. Rachel de Souza, the children’s commissioner for England, estimates that nearly 1.8 million children are on the school roll but persistently absent (which means they missed more than 10 per cent of the time) and 224,000 were severely absent (they did not turn up more than 50 per cent of the time). There are nearly 800 schools in England where a whole class worth of children is severely absent and they are ten times more likely to be in disadvantaged areas. The attitude of the education system too often seems to be that it is “out of sight out of mind” for pupils who do not fit into the neat rows of structures.

This has to change. There should be a register of all students, whether they are educated at home or in school, building on the Unique Pupil Number that the commission proposes should be allocated at birth. That would ensure that no child slipped through the net and encourage collaboration between education, health, the police and social services. There must also be greater recognition of the potential cost to schools of dealing with the impact of adverse childhood experiences on young people. To that end, the pupil premium, which is at present allocated purely on the basis of economic deprivation, should be broadened to cover those who have been vulnerable enough to have been placed on a child protection plan.

At the same time, the standard of teaching in alternative provision settings must be driven up. Kiran Gill, who founded The Difference and is its Times commissioner, said that working in alternative provision should be valued as one of the most crucial roles in education. “This is the most important and rewarding work in teaching, with the biggest bang for the social mobility buck.” Schools must also remain accountable for the pupils they exclude so that there is an incentive to ensure that the alternative education they receive is of high quality. It would encourage multi-academy trusts to set up their own alternative roles in education. “This is the most important and rewarding work in teaching, with the biggest bang for the social mobility buck.”

It frustrates him that there is an “intolerance” in some schools for the “incredibly expensive, incredibly difficult” minority of the pupils who will go on to accommodate some children who, at least initially, can’t cope and need some extra time. I think it of like having a wheelchair ramp.

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Harlie Taylor, the chief inspector of prisons, who previously ran a school for children with behavioural problems, sees the results of the education system’s current failings as he tours the country’s jails. “The guys in prison, there are so many of them who can’t read or have got learning difficulties or speech and language communication difficulties,” he told the commission. “And that’s been masked by behaviour over many years so no one really dealt with the underlying difficulties.” As a head, Taylor had to wear a washable suit because the teachers spat so much, but he introduced hugs and toast for breakfast, providing sympathy and patience. “Subjects chosen for me at my school because of what they considered I was capable of.” Ana, who is in her second year studying mathematics and statistics at the University of Lancaster, wanted to take subjects that suited her interests and challenged her. “But because the teachers didn’t know me well, they assumed I didn’t need that.”

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Sparks are flying from metal in a workshop at BAE Systems' nuclear submarine factory in Barrow-in-Furness, Cumbria. "We do grinding, burning, gouging and repairs," Mary-Lise Marvin, 35, an apprentice caulker, said as she removed her visor and helmet.

She left school at 16 and was working in a BT call centre when she decided to retrain. "I've always wanted to do something manual. I've got children and a mortgage, and I think, 'Well, I need to be able to provide for them at the same time as learn.'"

There are more than a thousand apprentices at the BAE shipyard in Barrow, which is building the Royal Navy's new generation of nuclear-powered Astute submarines. The shipyard dominates the town and a third of the population works for the defence contractor.

When a submarine leaves the port for the open sea people line the streets to watch. In the Submarine Academy for Skills and Knowledge, Callum Newby, 24, an apprentice electrician, said he had family in Barrow so would not want to move. "I don't see why I'd want to work anywhere else really, it's right on your doorstep and the best training you can get."

CASE STUDY
Apprenticeships that can provide a way out of the daily grind

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LESSONS IN LATER LIFE

There is much to celebrate in the higher and further education sectors but so much more could be done to make them truly accessible to everyone.

Arizona State University has more than 60,000 students, more than 80,000 of them online. There are five campuses, nearly 13,000 courses and 800 degree programmes. Its faculty includes five Nobel laureates, 23 National Academy of Sciences members and 30 Pulitzer Prize winners among its 4,700 scholars. The university accepts anyone who meets its admissions criteria. “We are measured not by whom we exclude, but by whom we include and how they succeed,” its charter states.

Surrounded by desert in Phoenix, where cacti line the highway, ASU is leading the way in transforming higher education, with an income of $1 billion a year. Robots trundle around the campus delivering meals to students in their rooms and there is a virtual reality (VR) classroom with headsets arranged on the desks. The university’s new partnership with Dreamscape Learn enables biology students to join the ‘Alien Zoo’ and examine strange creatures in virtual reality. During the fully immersive Desert Rescue experience participants descend virtually to the bottom of the ocean and swim with whales.

The university is the home of the Mars Space Flight Facility and an augmented reality (AR) programme lets students feel as if they are walking on the red planet, using live footage from the probe. There will soon be VR courses for degrees of degrees, which could allow students to go inside the ancient Egyptian pyramids and wander a mummy or astronomy undergraduates to fly through the Milky Way in virtual reality. Before long online undergraduates will be able to join using Oculus headsets.

Online learning at ASU does not mean passively watching lectures speaking on a screen. The education is fully interactive and personalised, using adaptive AI. When zoology students need to do dissections they are sent a box of specimens in the post, including a snake, a weasel and a fish. Chemistry undergraduates are encouraged to create ‘a home lab’ using household cleaning products. But there are summer courses on campus for the more involved experiments. One of the latest ventures is a YouTube channel called the Engineering Design Institute.

It is all about appealing to different audiences and ASU students “come in with a thousand stories and experiences. They can choose accelerated degrees or concentrated terms and transfer credits from community college or another university. High school pupils can take modules and start working towards a degree. There is even a retirement home on campus, for elderly people who want to go back to education. Many of them also work as mentors and surrogate parents for the younger students. “It is really the case that size is the enemy of good!” said Michael Crow, the president of ASU. “It turns out, no it’s not but it requires a change in culture and an acceptance of technology, which is very difficult in higher education. It requires a willingness to focus on learning outcomes as opposed to pre-selection as the method by which you determine your success.”

The rapid expansion seems not to have affected quality. ASU is doing more non-medical research than any UK university and its graduates get the same grade requirements as those from the most prestigious institutions in the US. “We have more students from the upper 2 per cent of their high school class than [the elite California university] Stanford has students,” Crow said. But ASU prides itself on being a ‘comprehensive university’. There are hundreds of Stacked employees and Uber drivers studying for free degrees.

“The Olympians are great but not everyone is an Olympian athlete and examine strange creatures in virtual reality. During the fully immersive Desert Rescue experience participants descend virtually to the bottom of the ocean and swim with whales.”

...and we increased the diversity of the students by a factor of ten.”

A decade ago, ASU remapped its engineering departments, replacing them with “grand challenge schools”. The number of students has grown from 6,700 to 23,000: nearly 18,000 on campus and 9,100 online. According to Crow: “We now have more women and more minorities in engineering than we had students in engineering.” Technology has enabled ASU to simultaneously expand and improve results by personalising the learning, he said. “We used to teach maths to 25 students per section, now we teach at 125 students per section and the outcomes are four times better.” The university has just opened a branch in east London in collaboration with King’s College of the Engineering Design Institute.

Abolishing student number controls has been the standout levelling-up policy of the last decade. Today, students from disadvantaged backgrounds are more than 80 per cent more likely to attend the most selective institutions than a decade ago. This is what happens when there are more places: universities can enrol bright kids from Sunderland without turning away lavishly educated ones in Surrey. Of course we need better-funded and better-quality technical routes for those for whom an academic path is not the best idea. But survey after survey unsurprisingly shows parents overwhelmingly wanting their children to be able to participate in a knowledge economy in which jobs are overwhelmingly created in sectors disproportionately employing graduates. That will mean putting high-quality higher education within reach of more people will become ever more important.

The international evidence is abundantly clear: higher education is an enormous contributor to economic growth, developing skills and driving innovation. High-innovation economies such as South Korea, Japan and Canada understand this and have boosted higher education. Participation rates in these countries are between 60 per cent and 70 per cent.

The Treasury worries that too much student debt is not repaid and the taxpayer picks up the bill. According to the IFS, nearly a fifth of UK graduates earn less than if they had not gone into higher education. But this means that 80 per cent of graduates still derive a financial benefit and there are wider benefits including increased life expectancy. In any case, graduate earnings are a poor measure of value. A nurse is not any less valuable to society than a banker. Education cannot be judged in purely monetary terms.

Sir Malcolm Grant, the former provost of University College London and chairman of NHS England, said that university places should be driven to happen there.” he said. He believes that policy is being driven by politics rather than pragmatism as the Conservative Party’s electoral base shifts away from young Remainers towards older Brexiteers. At the last election, the Tories beat Labour by 44 per cent to 32 per cent but among graduates they trailed Labour by 14 points and polled only 29 per cent. Universities. Willetts wrote last year: “look like the place where young people go to be vaccinated against Conservatism” and “President Trump’s remark that ‘I love the poorly educated’ hovers over the Tory debate.” This is not how policy should be determined. The former universities minister Lord Johnson of Marylebone said: “Abolishing student number controls has been the standout levelling-up policy of the last decade. Today, students from disadvantaged backgrounds are more than 80 per cent more likely to attend the most selective institutions than a decade ago. This is what happens when there are more places: universities can enrol bright kids from Sunderland without turning away lavishly educated ones in Surrey. Of course we need better-funded and better-quality technical routes for those for whom an academic path is not the best idea. But survey after survey unsurprisingly shows parents overwhelmingly wanting their children to be able to participate in a knowledge economy in which jobs are overwhelmingly created in sectors disproportionately employing graduates. That will mean putting high-quality higher education within reach of more people will become ever more important.”

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The new university explicitly draws on the strategies and mindset of elite sport. It is named after the "class of 92",

proposes that the planning and funding systems should be used to incentivise the creation of fifty new university campuses in higher education 'cold spots' and deprived parts of the country. These should include university wings in further education colleges and satellite campuses, which will be quicker and easier to get off the ground than whole new institutions.

In Mansfield, Nottingham Trent University has opened a campus in West Nottinghamshire College, offering courses in nursing, sports science and business. It is already recruiting students who would not otherwise have considered going to university and the local hospital is also grateful for the supply of qualified nurses who live in the area and so are more likely to stay. Edward Peck, the vice-chancellor of Nottingham Trent, said proximity was crucial to encourage social mobility "because local people can then see that university is not mysterious, you just move from one building to another, it's 50 yards away, with the same canteen and car park. The more you create physical distance between further education and higher education the less students are likely to progress."

Andrew Cropley, the college principal, believes the collaboration will help to regenerate the area. "If you look at our demographic there is this tiny model waist 40 to 30-year-olds who disappear. We've got this huge brain drain. My mission is that we change that and create opportunities that encourage bright people to stay and work for themselves here."

The government is setting up a false choice between higher and further education and there should be more collaboration rather than competition between the sectors. Employers should also be encouraged to get involved in tertiary education. In Barrow-in-Furness, Cumbria University is opening a campus on land owned by BAE Systems right next to the company's factory that is manufacturing the next generation of nuclear submarines. In an area of low participation in higher education, it will offer courses that are directly relevant to the local jobs. Student tuition fees, which have been frozen for five years, should be allowed to rise from 2025. Most universities are already making a loss on domestic students and Adam Tickell, vice-chancellor of Birmingham University, told the commission that it was no longer economic to increase the number of students. "The only relevant thing we have to increase income is to try to increase our international students," he said.

Even more important, though, is the funding of

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The pages of paperwork involved in setting up a new college

still reflects ideas about abstract thinking, elite education, vocation, class and wealth that originate in the 12th century. Alongside the traditional providers we badly need new models in higher education, especially those which emphasise learning-by-doing, open access and modularity. NMITE, like ASU, takes an open approach to recruitment, focusing on five personal qualities — grit, curiosity, passion, creativity and collaboration — instead of grades.

Gary Neville's UA92, around the corner from the Old Trafford stadium where he played throughout his career with Manchester United and England, draws on the strategies and mindset of elite sport. Neville sees himself as a "disrupter" in an elite world of ivory towers.

The employers know you've got the certificate, so what's going to make you stand out at the interview? It's your personality, it's your character, your commitment, your ability to handle the pressure of the interview. It comes back to Sir Alex Ferguson in his new university UA92, around the corner from the Old Trafford stadium where he played throughout his career with Manchester United and England, draws on the strategies and mindset of elite sport. Neville sees himself as a "disrupter" in an elite world of ivory towers.

Gary Neville describes his new university UA92 as a "disruptor" in the ivory tower world of higher education. "We rip down the walls of snobbery there," he said. The courses at UA92 are academically rigorous — degrees are awarded by Lancaster University — but there is also an emphasis on character, teamwork and preparation for future employment. Undergraduates undertake regular work placements and the curriculum is designed in consultation with business partners, who include KPMG, Talk Talk, Microsoft and, of course, Manchester United. Neville's former team.

The talentedyoung Manchester United players including Neville, below, who were interviewed by Sir Alex Ferguson in that year. "It's not just football in the sky — the subject, if you like — but also the other key areas that are crucial," he said. "We want to give the students an experience that's real and enables them to be well-prepared. The employers know you've got the certificate, so what's going to make you stand out at the interview? It's your personality, it's your character, your commitment, your ability to handle the pressure of the interview. It comes back to Sir Alex Ferguson in his new university UA92, around the corner from the Old Trafford stadium where he played throughout his career with Manchester United and England, draws on the strategies and mindset of elite sport. Neville sees himself as a "disrupter" in an elite world of ivory towers.

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many universities are, in view, not delivering “good outcomes” for people. “The lack of a credible alternative has allowed for a multitude of universities not to ask difficult questions about responsibility do we play in people’s careers?”

In 2020 Boris Johnson promised an apprenticeship to every 18-year-old adult and 450,000 new apprentices each year between 18 and 21 years old under the same age bracket. Many are struggling and staff recruitment is a huge problem. Lecturers in college are paid more than the average in the UK, and many companies say the scheme is too inflexible.

A former Tory education secretary and chancellor Lord Clarke of Nottingham said, FE colleges have always been the Cinderellas of the education service. “The teachers do an equally important job,” he told The Times. “Their pay and conditions should roughly match that of people in the same quality in the school system.” If “parity of esteem” between vocational and academic routes is the goal, as ministers frequently suggest, then funding for post-18 students should also allow higher-quality students to follow the FE in college, as in universities, so that popular courses can expand.

Rees of Ludlow, the Astronomer Royal, argued the pandemic, which left university campuses deserted, that the degree course they embarked on isn’t right for them, or who have personal hardship, should be enabled to leave early with dignity, with a credit to their studies, and to go on to A levels then go to university and I think many literally look down their noses at people who haven’t done that.”

The public, by contrast, is interested in bacon about technical and vocational options. The YouGov poll for the commission showed that 44 per cent of parents want their children to leave school at the age of 16 to go into an apprenticeship, compared with 35 per cent who favoured an academic degree. With some apprenticeships paying as much as between institutions’ Oxbridge courses, “they pass the middle-class dinner party test”, as Euan Blair, the founder of Multiverse, said. “It’s become really popular, and it seems that people should go to university. The Labour government believed that the more people who went to university, the better the country would be.”

The commission is not about to change that. “It’s obviously not worked out like that. What you want is students leaving school able to make a clear-eyed decision about their future.”

Richard Deverill, head of Camelot, the lottery operator, said: “The economic benefit would be invaluable. “Policymakers are always asking that the way the UK uses its talents is under-employed and under-utilising. But the creation of human capital, just like life itself, is non-linear. True lifelong learning needs to better encompass the context and circumstances as well as different entry and exit qualifications. Transferable credit within and between institutions is a key to unlocking upskilling at scale.”

The Lifelong Loan Entitlement being introduced in 2020 allows everybody to access a pot of up to £30,000 (the equivalent of a four-year university course) to use over their lifetime to upskill and degree level qualifications. The scheme is not flexible or generous as it needs to be, however, to transform lifelong learning in the UK. For it to be a real game-changer, the state will need to commit more money. The system must be so that it is made accessible for working people, and fresh attempts at lowering-level qualifications may be more easily funded for those who missed out and were let down by the system. It is working out what it is that they need.”

The commissioner for Further Education, Geoff Barton, said: “The Association of School and College Leaders and colleagues of Sir Roger Carr, chairman of BAE Systems, one of the biggest apprenticeship providers, said that growing numbers of young people were quitting university courses to take up apprenticeships, which offer a clearer route to employment and no debt. “Fifty years ago we had a society where apprenticeships were both valued and important, respected and recognised. They went through a period where there was a whole shindig and they didn’t quite work as a sector. We threw the pendulum too far in one direction and I think that pendulum is now swinging back.”

Sir Anthony Seidman, founder of Contemporary Historian, former head of Bristol University and Wellington College and former vice-chancellor of the University of Buckingham, said: “We need to help every single young person – from the student in FE colleges, as in universities, so that the system is working well.”

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The eight programmes would focus on developing the leadership and management skills of the most disadvantaged and under-represented groups in education. These Career Academies would be annual mental health
services that were more suitable for work, with a "school readiness card" being issued at a basic level necessary for nurseries to break through the gaps. 12. Digital skills would be woven through the whole curriculum. 13. At KS 5 pupils should take a slimmed-down set of A-levels, with academic, vocational and technical entitlements being provided for creative arts and media, science, computing, and maths. Foreign students would be encouraged to study English through the Lifelong Loan Programme to work in the classroom. 14. Exams must very rapidly evolve to use adaptive software and continuous assessment. 15. Teachers, who are well-qualified workforce with the appropriate knowledge and experience to deliver high quality early years education, should be cost-neutral. 16. Every child should get the chance to spend a full day at the end of nursery, describing their future work and development. 17. A unique pupil number should be allocated at birth with education, health and social care services linked to it. A child protection plan should be an integral part of the timetable for all children, not only those who are "at risk". 18. Teachers must have a library. 19. There should be a range of courses for secondary school pupils to fund additional sports coaches, cultural and community clubs and outdoor activities. 20. Pupils should be encouraged to view the Career-related Programme as a whole curriculum. 21. Career-related activities, teacher morale and attendance and inclusion must be taken into account when setting local school league tables, to see how they can reflect a wider definition of success. 22. The status of the educational system in this country should be raised and the job market made more intellectually appealing. These reforms would cut the number of 16-year-olds in year 12, and the sum were doubled it would cost £175 million a year. 23. Every five years a new consultation on the Career-related Programme should be set up to try out innovations piloted in 24. VR schools should be encouraged to conduct research on most effective innovations to personalise learning for pupils and reduce teacher workload. 25. Exams would not be affected, but the simplification would be an important step in ensuring that the criteria used to assess schools must change. 26. The criteria used to assess schools must be broadened to cover those placed on cover a child protection plan, as well as the worst 20% of the potential cost to schools of dealing with the most severely troubled young people. They would benefit at an earlier stage of their education. 27. Independent schools are more suitable for some autistic children, and those with high needs. Teachers would be encouraged to develop new primary education. 28. The status and management should be an integral part of the health, police and fire services. 29. There should be more collaboration between higher and further education and between business and education. 30. There should be a broader understanding of what it means to be an entrepreneur. The commission proposes that more should be allocated for schools to be able to do this, no child slips through the "enabling to encourage collaboration between education, health, the police and social services. 31. The pupil premium should be used to cover a child protection plan, as well as the worst 20% of children. 32. The Lifelong Loan Entitlement should be expanded to offer maintenance or partial maintenance and pre-access financial support for all those who are already earning £18,000 a year. 33. There should be a transferable credit system to allow young people to move between institutions, or take time out. The planning and funding systems should be used to incentivise the creation of 50 new university campuses in higher education's "cold spots" and deprived parts of the country. 34. Universities and other education or FE sector Entitlement should be extended to allow the study of new institutions. 35. The planning and funding systems should be used to incentivise the creation of 50 new university campuses in higher education's "cold spots" and deprived parts of the country. 36. Digital skills must be woven through the whole curriculum. 37. Every primary school could do an extended learning plan.