ISSN: 1462 - 7272

Education Journal Review

Volume 29 • Number 1
November 2023

Education Journal Review is published three times a year. It is owned by Education Publishing Worldwide Ltd. and published under license by the Education Publishing Company Ltd. in the United Kingdom.

Correspondence about editorial matters should be sent to the editor, Demitri Coryton, at info@educationpublishing.com

Correspondence about all other matters should be sent to the publisher at info@educationpublishing.com

Subscription rates for *Education Journal Review* are given below. Subscriptions should be paid to the Education Publishing Company Ltd and paid by BACS. Account details are available upon request.

In common with all our titles, the print edition is now no longer available. *Education Journal Review* is now available only in electronic form. It can be sent as a PDF file by email and accessed via our website. Subscribers will be sent access details upon request. These can be user name and password or IP access, depending on subscriber preference. There is no price difference between the two.

Back issues from volume 15, when the Education Publishing Company Ltd became publisher of what was then known as *Education Review*, and before that *NUT Education Review*, are available to subscribers on our website at www.educationpublishing.com. During the course of volume 25, the name was changed slightly to *Education Journal Review.*

Subscription rate for 2024

UK and rest of the world, one year	£160

Single issue rate for 2024

UK and rest of the world, one year	£60

Back issues or volumes are available as PDF files at the same rate as current issues.

Education Journal Review

Volume 29 Number 1
November 2023

The Education Publishing Company Ltd.
15A East Street, Oakhampton, Devon, EX20 1AS.
Email: info@educationpublishing.com

Education Publishing Worldwide Ltd.
15A East Street, Oakhampton, Devon, EX20 1AS.
Email: info@educationpublishing.com

Education Journal Review

Contents

Volume 29 • Number 1
November 2023

Education Journal Review
Volume 29 Number 1
November 2023

ISSN: 1462 - 7272

Preface

This issue of *Education Journal Review* starts with a memorial appreciation of the late Professor John West-Burnham. It is with sadness that we record his passing, but with joy that this appreciation records the enormous contribution to education that he made during a long and distinguished career.

In her paper, Elizabeth Ellis of Arden University explores the concept of promoting learning behaviours and eradicating learning styles, which she argues is a critical step forward for education.

The OECD is one of the most influential bodies in the world, and its work on education in recent decades has informed policy makers in most of the developed world. It has a vast number of well-qualified staff and an unparallelled reach to do international research. Its PISA, PIAAC and TALIS projects have transformed our understanding of what is happening in the world of education. Each year the OECD draws together statistics on its work and publishes these in *Education at a Glance*. In this article the latest issue explores developments in vocational education and training.

John Bangs, who has had many years of involvement with the OECD through his work with Education International, looks at the launch of *Education at a Glance 2023* in the UK and the USA.

In an abridged version of their full research report for the Department for Education, Peter Elias and Andy Dickerson with Neil Bachelor argue for a skills classification for the UK, and what plans for development and maintenance should look like.

Demitri Coryton
Editor

Malcolm Groves

Malcolm Groves is Chief Executive of Schools of Tomorrow and is an author of books on education.

Community, compassion and leadership - reflections on the life and work of Professor John West-Burnham

By Dr Malcolm Groves
Schools of Tomorrow
malcolm@schoolsoftomorrow.org

Let me begin with a question. What do these three things have in common: the Pony Express, the Cutty Sark, and Wittgenstein's Propeller?

This was the question posed at the launch of Schools of Tomorrow at the RSA in London in November 2013 by the late Professor John West-Burnham, whose death in December 2022 has deprived the education world of a truly exceptional figure.

Schools of Tomorrow (www.schoolsoftomorrow.org) is a mutual voluntary network of schools internationally and from all phases seeking to support each other in values-driven change to better equip children and young people better to face a challenging and uncertain future world. It is a network which he helped to establish and continued to contribute to its development until his death.

To answer John's question, they are of course all connected to forms of transport. They are also all now obsolete. But John's own answer was inevitably more subtle on both counts. They have all been replaced by something else that performs their core function more effectively. However, that improvement in performance did not come from incremental improvement nor from people trying harder to do the same old thing better, it came from finding a fundamentally different solution.

Mail was not delivered more quickly by encouraging or breeding horses to run faster, but by the coming of the railroad. Planes did not fly faster ultimately because of a better propellor but because of the invention of the jet engine. In other words, doing better required thinking differently not just persevering harder.

For John, here was an apt analogy for the (English) education system. He meticulously analysed the statistics which showed that, despite the blood, sweat and tears of a great many talented leaders and teachers, and whatever individual successes there had been, at a whole system level very little has changed in terms of school performance over the last decade and a half. This was the case pre-COVID, so lockdown, for all the extra problems it has caused, is not a factor in this.

The current situation across the school system might be best described as diminishing returns. This is the situation where the energy and commitment of students, their parents, teachers and school leaders are simply not producing the outcomes appropriate to those levels of engagement and investment (see, for example, Jerrim and Shure 2016:4).

There is moreover an ethical dimension of social justice attached to this of which John was acutely aware. Poorer families and their offspring are disproportionately affected by this lack of progress. The evidence clearly indicates that the gap in performance between advantaged and disadvantaged students is not only not narrowing but actually growing and potentially lasting into the distant future (see, for example, EPI Annual Report July 2019).

As a result of this analysis, much of John's work and thinking was devoted to the search for the school system's equivalent of the jet engine, to recognise the need to think differently about how we do things if we want to shift performance dramatically. And, of course, once he was certain, from wide-ranging evidence, what that change might look like, he strove to encourage and support schools and school leaders to understand what was needed in their context and to start to retrofit it into their practice.

That answer, the clue to the performance leap needed within education, John believed lay in understanding and making good use of the concept of social capital. There are numerous ways of defining the relationship between social capital, education systems and personal success. The following list would probably be recognised by most people working in this area:

- High quality, authentic relationships
- A shared sense of place and common identity
- Agreed norms and consensual values
- Democratic and liberal ethos
- A culture of learning and development.

In John's view "there is every reason to argue for a causal relationship between social capital and educational success, however defined. There is every reason to have high confidence in the proposition that community is one of the most significant variables that has the potential, when developed, to make a disproportionate impact on educational achievement. Social capital expressed through community engagement and authentic relationships makes a genuine difference". (Groves and West-Burnham 2022: 47)

He argued the evidence to support that view was overwhelming, drawing on the work of Robert Putnam among many others: child development is powerfully shaped by social capital ... trust, networks, and norms of reciprocity within a child's family, school, peer group, and larger community have wide-ranging effects on the child's opportunities and choices and, hence, on behaviour and development …" (Putnam, 2000: 296)

John was acutely aware of the irony that most educational policies and strategies for improving educational outcomes have concentrated almost exclusively on improving the school when we have known for some while that "the tragedy of school change is that only about 30% of the explanation for variations in school achievement appears to be attributable to factors in the school" (Moreno, Mulford and Hargreaves, 2007).

I think there were three key ideas which underpinned John's push for change, expressed in his writings and lectures. I summarise these as leadership, community, and compassion, and each was the theme of a book I was privileged to write with him, illustrated and informed by case studies from the Schools of Tomorrow network.

Leadership was the dominant focus of his work. He had an unwavering commitment to the leadership and development of innovative approaches to the learning of young people, all young people. He was always willing to challenge convention and belief where he was clear both the evidence of research and the moral case demanded it. He and I captured some of the results of that thinking when we wrote *Leadership for Tomorrow* together in 2017 (Crown House 2017).

Although schooling is a highly significant contributor to educational outcomes when at its most positive, we argued it would be sensible to encourage schools to pay a little more attention to engaging with those social, economic and environmental factors beyond the school's gates so as to exert positive influence on them and to focus in more on the individual learner in their social and educational context.

However, this runs against the grain of much current accepted leadership wisdom and policy. Thus it requires leaders with courage and strong values to take forward such an approach in the present climate. We followed the work of five leaders engaged in such change over a period of some three years and identified six distinctive characteristics of their leadership which contributed to their impact. We summarised these as:

- A clear sense of values and personal authenticity.
- A commitment to fostering high quality relationships at every level.
- An understanding of complexity allied to a deep sensitivity to context.
- A commitment to meaningful collaboration.
- A focus on building community capacity.
- A tight-loose leadership balance which combines

empowerment and agency with coherent values, a shared purpose and joint accountability

Against this context, the concept of managing change is unhelpful. Managing implies control, order, structure, consistency and predictability. Change leadership, by contrast, is caught in the turbulence between the system or context and the school. It is essentially the difference between managing a swimming pool and nurturing a pond. In the former, the environment is deliberately and systematically managed so that while it is safe, it is also sterile and un-evolving. This is in contrast with the complex adaptive environment of the pond, changing constantly and evolving, with the task of the leader here fostering the conditions for growth but not necessarily controlling them.

John empowered those who aspired to be school leaders through his innovative thinking and passion for social justice by promoting the profound conviction that educational change and improvement must be underpinned by moral purpose. And this required an understanding of complexity, and the ability to be a gardener rather than a carpenter, to borrow Alison Gopnik's phrase, to nurture unpredictable growth not just manage predictable outcomes.

His second key theme, that of community, gave rise to the 50:30:20 model underlying educational outcomes, which he and I wrote about in our second book together Flipping Schools! (John Catt, 2020).

We know from a range of evidence sources over the last twenty years that only between 20% and 30% of the factors that influence educational outcomes are directly within a school's control. Roughly 50% can be accounted for by genetic factors (Plomin 2018), while social and economic factors such as levels of poverty, social class and family background account for a further 20-30% (e.g. Desforges 2003: 21; Wilkinson and Pickett 2009: 103; Wilkinson, Bryson and Stokes 2018).

However, current school accountability frameworks give insufficient recognition to this more complex

understanding. As a result, schools are currently more likely to see themselves as organisations rather than communities, which is understandable when the prevailing orthodoxy in terms of school accountability focuses heavily on the school as an organisational unit. In reality, though, this may well be one of the issues compromising the potential of schools to achieve equity and engagement.

On the basis of the present dominance of structures and outcomes, students and teachers alike can be regarded as being important mainly for their contribution, usually via high-stakes testing, to the public performance of the organisation. Accountability is essentially reductionist, based on criteria over which teachers and students have only limited control. Relationships are valued in so far as they serve to promote the purpose of the organisation in the marketplace. In other words, the personal is used for the sake of the functional.

To address this moving forward, we argued we must start to turn management upside down, a term we drew from our case study of leadership in one hugely innovative and successful business, Timpson, and start to think about the turning school and community inside out.

By that, we meant the school consciously needs to build its own strong social capital, modelling community in its daily life. It then becomes possible for the school to radiate this capital outwards in such a way as to positively influence its families and communities, and hence profoundly influence the potential for future educational achievement of young people.

In this community-derived model, the functional is both subservient to the personal and expressive of it. Structures and organisation have within them distinct traces of person-centred ways of being. There is greater emphasis on more participatory, less hierarchical forms of engagement and decision-making, and boundaries between status, role and function are increasingly crossed.

Any community, irrespective of size or purpose is only successful to the extent that it is able to build social capital.

That means it has a focus on:

- Shared values and common purpose focused on equity and excellence.
- Quality relationships and effective communication, in particular open dialogue based on shared language.
- Trust as the basis for working relationships based on respect and empowerment.
- A sense of shared identity and place – belonging and engagement.
- Shared learning to build confidence and capacity.

This for John encapsulates the key to the next phase of school improvement, that of building social and cultural capital. It involves flipping the collective educational mindset away from seeing the school as an organisation towards viewing it as a community. It means turning school-centric thinking inside out to open up a community-centred and learner-focused mindset. The school as a strong and vibrant community itself pivots to radiate outwards and grown social capital within its various communities.

The four schools whose work we studied in our research for the book all displayed most of these characteristics to some degree. All saw themselves on a learning journey. Building community has to be an evolutionary, learning process, not the imposition of alien ideas by enthusiastic demagogues. Community development is an organic process that requires appropriate and empathic leadership and strategies that are fit for purpose i.e. form follows function.

Perhaps the most appropriate aspect with the greatest potential for real impact is for schools to become model communities in the ways that they are organised and designed. In the book we strongly endorse the idea of schools as micro communities – in other words, villages.

Pinker (2014) argues that to build the village effect you need a 'community of real friends that you see in the real world'. We – both men and women – are happier, healthier and more resistant to disease and despair if we satisfy the

need for meaningful human contact. Our loads seem lighter, the hills literally less steep. Genuine social interaction is a force of nature. (Pinker 2014, p.309)

There are some primary and secondary schools that have been designed to facilitate social interaction and successful learning. All too often, however, schools are essentially a series of corridors with rooms off them designed to accommodate 30 young people and one adult. With the addition, in many secondary schools, of tables set out in rows, it becomes clear that this is the architecture of teaching and managing rather than of learning. It is equally clear that the organisational structure is essentially linear and hierarchical based on age, perpetuating the myth that learning takes place in homogeneous cohorts with automatic progression for all – irrespective of their stage of development.

In a way, that leads us finally to the third big idea, compassion, "a way of seeing the world that places love-in-action at the heart of everything" (Coles and Gent 2020: 7). The concept embraces care for self, others, place and planet.

In the period of COVID and lockdowns, John became more convinced than ever of the need to change course in the way we think about learning and schools. Recognising the highly precarious future in front of humanity, he wanted school leaders to create more humane and personal places for young people to learn better to understand and shape their futures, leading with power and authority but tempered with and characterised by compassion, by kindness and love.

This is the case developed in his final book 'So What Now?', published in 2022. The enormity and scale of the planetary crises we and future generations now face means schools more than ever need to, as Mahatma Gandhi expressed it, "be the change that you wish to see in the world".

So the future-facing school is one that models within itself, its ethos, organisation, and practice, the transformation it seeks in its pupils if they are to have a chance of creating a just and sustainable future for all. For transformation is not a purely academic exercise, it requires the integration of heart,

hand, and head - of character, agency and understanding. It is caught more than it is taught. In this, above all relationships matter.

It is no coincidence that the motto of XP school, one of the examples we cite in the book, is 'above all compassion'. High quality relationships, at every level, and the values which necessarily underpin these, hold primacy in the future-facing school. In the words of one headteacher to us: "You have to build the relationships first. Nobody cares what you know until they know you care." The building blocks of these relationships are care, expectation, habit and structure.

With his death John leaves behind a huge legacy. His wealth of knowledge and insight into education and education leadership, amassed over decades from a long and impactful career of teaching, writing, researching and consulting in over 27 countries was unique.

Through his writing, speaking, thought and wisdom, his contribution to nurturing a broader, more humane vision of education, and the leadership needed for that to thrive, was immense and it will be sorely missed. He was a truly exceptional figure in the field of education, whose contributions have left an indelible mark on the landscape of educational leadership and management, and of which this article attempts to give but a flavour. With his vast knowledge, profound insights, and unwavering commitment to improving the quality of education, he has inspired countless educators, leaders, and policymakers to embrace innovative approaches and foster positive change in schools and educational systems.

To celebrate his life and legacy his friends and family, in partnership with the Edge Foundation and Schools of Tomorrow which John helped to establish, invite all to a special symposium at Mary Ward House in London on November 30 at 17.30. Chaired by Dame Alison Peacock, with contributions from Maggie Farrar CBE, Professor Mick Waters and Clare Flintoff, CEO of Asset Trust, the symposium will explore the themes of community, compassion and leadership central to John's work and how collectively we

might build on his legacy. Tickets are available at tinyurl.com/pjfkb3x9. Or scan the QR code:

Tea and coffee will be available on arrival and the symposium will be followed by a drinks reception and networking time with many who came under his influence, wisdom and generosity of spirit. All profit from ticket sales will go to the recently established John West-Burnham Memorial Fund which seeks to develop and support new research and development opportunities around community, compassion and leadership in schooling.

If you would like to make a separate contribution to this fund, administered in the first instance by Schools of Tomorrow, you can do this via BACS using sort code 60-83-01, account no 20323071 and ref JWB.

Let me finish with a paragraph John wrote for one of our books, Flipping Schools!, which I think epitomises his ambition: "We need to find the way to as it were 'vaccinate' children against academic failure. Growing up in a caring and literate family in a 'village' of high social capital takes us a long way towards moving from a leadership mentality of find and fix to one of predict and prevent. In understanding that lies the real future for systemic improvement."

Let's continue his work to make that happen.

References

Coles, M. and Gent, B. (2020) *Education for Survival*. London: University College London Press.

Desforges, C. and Abouchaar, A. (2003). *The impact of parental involvement, parental support and family education on pupil achievement and adjustment: A literature review.* DfES research report RR433. Nottingham, Department for Education and Skills.

Education Policy Institute Annual Report 2019. https://epi.org.uk/publications-and-research/annual-report-2019/

Gopnik, A. (2016). *The Gardner and the Carpenter.* London: The Bodley Head.

Groves, M, Hobbs, A., West-Burnham, J. (2017). *Leadership for Tomorrow.* Carmarthen, Crown House.

Groves, M. & West-Burnham, J.(2020) *Flipping Schools!* Suffolk, John Catt.

Groves, M. & West-Burnham, J. (2022). *So What Now?* Suffolk, John Catt.

Jerrim, J. and Shure, N. (2016). *Achievement of 15-Year-Olds in England: PISA 2015 National Report.* London: Department for Education.

Moreno, M., Mulford, B. and Hargreaves, A. (2007) *Trusting leadership: from standards to social capital. Nottingham:* National College for School Leadership.

Pinker, S. (2014). *The Village Effect*. London: Atlantic Books.

Plomin, R. (2018). *Blueprint*. London: Allen Lane.

Putnam, R. (2000). *Bowling Alone*, New York: Simon and Schuster.

Wilkinson, R., & Pickett, K. (2009). *The Spirit Level*. London: Allen Lane.

Wilkinson, D., Bryson, A., & Stokes, L. (2018). *Assessing the Variance in Pupil Attainment: How Important is the School Attended?* National Institute Economic Review, 243(1), R4–R16.

Elizabeth Ellis

Promoting learning behaviours and eradicating learning styles – a critical step forward for education

Elizabeth Ellis is Head of the School of Digital Education at Arden University, .

By Elizabeth Ellis
Head of the School of Digital Education, Arden University

Abstract: *The education industry needs to shake off its long-standing ethos of learning styles. Despite there being no evidence to prove that designing lessons to meet different learning styles accelerates student learning, and ample evidence proving learning styles to be a myth, many teachers are still being consistently directed to keep these pseudoscientific style categories in mind when designing pedagogies.*

By continuing to perpetuate these debunked learning styles, educators can unintentionally cause harm to learners at all levels – right from school through to higher education.

Key words: Learning, styles, behaviours, ability, inclusive.

What are learning styles? First gaining momentum back in the 70s, the learning style theory suggests that different students learn best when information is presented to them in a particular way. The most commonly referenced learning styles include visual, auditory, reading/writing and kinaesthetic. Respectively, these assume that certain individuals learn best by looking at pictures, listening, through reading or writing or by carrying out hands-on activities. Pedagogies are then designed around these learning styles to help students learn in the 'best' way for them.

However, for learning styles to work, students need to

have a consistent attribute associated with this, and their style needs to be consistent – in every situation, no matter what. For example, if they are an auditory learner, they would need to prefer and be able to learn in an auditory way, in every learning scenario – and this often is not the case.

More recently, research highlights how information is processed differently by different parts of the brain, and that, because the brain is so interconnected, as soon as one modality (such as sight or hearing) is activated, others are too (Dekker et al., 2018). While learners may express preferences for how they want to receive information, ample research suggests this is not associated with how the brain works. As a result, studies from neuroscientists, psychologists and teachers themselves have roundly debunked the long-standing learning style theory.

Although, despite this, concerningly, a study shows how almost 90% of educators around the world believe in the efficacy of learning styles – even though they can ultimately lead to students being pigeonholed and losing motivation.

Why do educators believe in learning styles?

As noted in research by Willingham et al., learning styles was designed as a 'solution' to create categories of learners.

Once exposed to all these seemingly reliable (or at least not overtly unreliable) sources, confirmation bias – the tendency to process information by looking for or interpreting information consistent with a person's existing beliefs – could easily support and maintain the belief that learning styles are viable. However, this may only be the case for a particular scenario; not every scenario.

For example, if a teacher is helping a student who is struggling with a particular concept, and they have tried a few ways of explaining it to no avail, but decides to draw a diagram to illustrate the concept differently and it suddenly clicks, it is natural for the teacher to conclude that the student is a visual learner. However, it may also be the case that, for this particular concept, the diagram may have been an effective way to communicate the idea, and any learner may

have benefitted from having it communicated in this way.

Another reason many educators believe in learning styles stems from the confusion between ability and style. Most researchers agree that ability is multifaceted and that many people vary in these abilities. From there, it is often a short step to the idea that weakness in one ability can be supplemented with strength in another.

The misconception is that understanding student differences will improve instruction. However, this assumes that there are some aspects of the mind that do not differ, which are common across all students, and that honouring these basic features will help to improve instruction. However, there is a tension in applying these two types of knowledge in a teaching environment.

On the one hand, obsession with student individuality will ultimately lead to a form of paralysis; if every student is unique, how can teachers draw on their experiences with other students to improve the instruction of particular students? If every student is unique, there is no reason to believe that what worked before will work now. On the other hand, if teachers focus solely on what they believe is true of all students, then they are less likely to identify one set of 'best practices' and stubbornly apply those practices to all students.

For many teachers, learning styles offer a stable middle ground between treating every student the same and treating every student as a unique individual. However, brain-based teaching, as exhibited in the idea of teaching to address perceptual learning styles, has no basis in what scientists are learning about the brain and how it works. As a result, training teachers to assess and accommodate learning styles can be harmful and poor educational practice.

The harm in learning styles

Adopting the learning style method can unintentionally cause more harm than progress for students. For example, it may cause the creation of unwarranted and unrealistic expectations among educators. Additionally, matching a student to a learning style in this way can waste

time and resources, and it can potentially demotivate students.

Learning style theory, particularly for students who have previously had poor formal education experiences, can also enhance self-limiting beliefs. For example, adopting a learning method or a particular label for a given student, such as 'visual learner', can plant the idea for that student that they are unable to learn unless information is presented in a specific format. This can demotivate students, as they may conclude that they cannot learn a particular material due to the way it is communicated to them.

Ironically, adopting learning styles can also prevent students from taking ownership of their own learning journey, as they ultimately place the onus back on the teacher and their ability to present information in the required format. In the same way students need support to take ownership of their digital capabilities and skills, they also need support to take ownership of advancing their academic skills.

Learning styles ultimately perpetuate poor teaching practice and detract from inclusive and accessible practice – which can be limiting for a student's educational experience.

Developing more inclusive learning

Prioritising inclusive pedagogies that recognise, value and support all students to succeed is critical for a positive education experience. This requires a combination of multiple means of engagement through activity design, multiple means of representation and multiple means of action and expression.

By applying student-focused learning design throughout the educational journey, teachers can not only consider students' current level of knowledge and ability, but they can also focus on the skills or experiences they want them to gain by the time they complete the class or course.

There are a whole range of learning design frameworks and designs that can be applied to student learning experiences, from a 5-minute micro lecture to a 4-hour online workshop, for example. Frameworks, such as

UCL's Conversational Framework and its attendant ABC method, can ultimately offer educators a 'stage', which can be populated through conversations with students and put into action using a range of activity types that enable students to engage with different topics in different ways.

This steers away from the concept that students need to engage in specific, and often simplistic, styles in order to be able to acquire knowledge. And instead, by incorporating learning design frameworks, educators can encourage the kind of complexity that aids learning; by taking a challenging concept and bringing the student on a journey to enhance understanding using a combination of reading, watching, communicating and hands-on activities, for example.

However, we can also take this one step further, building on research from 2018 (Ellis, Gallagher and Peasgood) that illustrates that students studying online, at a distance, displayed distinct learning behaviours.

What are learning behaviours and why are they important?

Learning behaviours are based on the idea that, when students learn, they display core, identifiable behaviours, which are recognisable and replicable but emphasised or de-emphasised depending on particular factors, such as: personal preference, digital skills, proficiency and the stage students are at in their educational journey.

The research then emphasised that students that display these learning behaviours are more likely to progress positively throughout education. The learning behaviours identified include:

- Goal-setting – setting targets and planning towards these
- Time – managing and prioritising time to spend studying, adhering to a study schedule
- Focus – avoiding clutter and distraction, including digital distraction
- Note-making – making and storing notes, either digitally or physically
- Digital-preferred – having the ability to use technology, whether choosing to do so or not

- Help-seeking – having the ability to connect with other people – either peers or educators – for support with their studies
- Elaboration – having the desire and willingness to seek new information and relate the new ideas this brings to those already known.

Aren't learning behaviours just another kind of label?

Student-centred pedagogies mean understanding the student body holistically – their background, their goals, as well as their abilities. Learning design frameworks offer an important baseline that builds across universal elements, including digital skills, capability, graduate outcomes and authentic assessments. It does a lot of the 'heavy lifting' to provide for educators, so they can develop knowledge building and subject expertise.

However, any new concept can become a damaging label if we're not careful, so intentionality is ultimately key. The urge to engage in learning styles often comes from a good place. However, differentiation based on a neuromyth will often harm the efforts of both teachers and students.

As educators, we can push back on the idea that in some way this is about modifying student behaviours or training learners to behave in a particular way to ensure success. Learning design augmented by learning behaviours champions differentiation based on knowledge, engagement and skills development – rather than assumptions. It also prioritises putting the student at the centre of their own learning journey, giving them the confidence they need to own it and succeed.

The education industry needs to shake off its long-standing ethos of learning styles. Despite there being no evidence to prove that designing lessons to meet different learning styles accelerates student learning, and ample evidence proving learning styles to be a myth, many teachers are still being consistently directed to keep these pseudoscientific style categories in mind when designing pedagogies.

By continuing to perpetuate these debunked learning styles, educators can unintentionally cause harm to learners at all levels – right from school through to higher education. Elizabeth Ellis, Head of the School of Digital Education discusses the impact of learning styles and explains why educators should consider learning behaviours instead.

What are learning styles?

First gaining momentum back in the 70s, the learning style theory suggests that different students learn best when information is presented to them in a particular way. The most commonly referenced learning styles include visual, auditory, reading/writing and kinaesthetic. Respectively, these assume that certain individuals learn best by looking at pictures, listening, through reading or writing or by carrying out hands-on activities. Pedagogies are then designed around these learning styles to help students learn in the 'best' way for them.

However, for learning styles to work, students need to have a consistent attribute associated with this, and their style needs to be consistent – in every situation, no matter what. For example, if they are an auditory learner, they would need to prefer and be able to learn in an auditory way, in every learning scenario – and this often is not the case.

More recently, research highlights how information is processed differently by different parts of the brain, and that, because the brain is so interconnected, as soon as one modality (such as sight or hearing) is activated, others are too (Dekker et al., 2018). While learners may express preferences for how they want to receive information, ample research suggests this is not associated with how the brain works. As a result, studies from neuroscientists, psychologists and teachers themselves have roundly debunked the long-standing learning style theory.

Although, despite this, concerningly, a study shows how almost 90% of educators around the world believe in the efficacy of learning styles – even though they can ultimately lead to students being pigeonholed and losing motivation.

Why do educators believe in learning styles?

As noted in research by Willingham et al., learning styles was designed as a 'solution' to create categories of learners.

Once exposed to all these seemingly reliable (or at least not overtly unreliable) sources, confirmation bias – the tendency to process information by looking for or interpreting information consistent with a person's existing beliefs – could easily support and maintain the belief that learning styles are viable. However, this may only be the case for a particular scenario; not every scenario.

For example, if a teacher is helping a student who is struggling with a particular concept, and they have tried a few ways of explaining it to no avail, but decides to draw a diagram to illustrate the concept differently and it suddenly clicks, it is natural for the teacher to conclude that the student is a visual learner. However, it may also be the case that, for this particular concept, the diagram may have been an effective way to communicate the idea, and any learner may have benefitted from having it communicated in this way.

Another reason many educators believe in learning styles stems from the confusion between ability and style. Most researchers agree that ability is multifaceted and that many people vary in these abilities. From there, it is often a short step to the idea that weakness in one ability can be supplemented with strength in another.

The misconception is that understanding student differences will improve instruction. However, this assumes that there are some aspects of the mind that do not differ, which are common across all students, and that honouring these basic features will help to improve instruction. However, there is a tension in applying these two types of knowledge in a teaching environment.

On the one hand, obsession with student individuality will ultimately lead to a form of paralysis; if every student is unique, how can teachers draw on their experiences with other students to improve the instruction of particular students? If every student is unique, there is no reason to believe that what worked before will work now. On the other

hand, if teachers focus solely on what they believe is true of all students, then they are less likely to identify one set of 'best practices' and stubbornly apply those practices to all students.

For many teachers, learning styles offer a stable middle ground between treating every student the same and treating every student as a unique individual. However, brain-based teaching, as exhibited in the idea of teaching to address perceptual learning styles, has no basis in what scientists are learning about the brain and how it works. As a result, training teachers to assess and accommodate learning styles can be harmful and poor educational practice.

The harm in learning styles

Adopting the learning style method can unintentionally cause more harm than progress for students. For example, it may cause the creation of unwarranted and unrealistic expectations among educators. Additionally, matching a student to a learning style in this way can waste time and resources, and it can potentially demotivate students.

Learning style theory, particularly for students who have previously had poor formal education experiences, can also enhance self-limiting beliefs. For example, adopting a learning method or a particular label for a given student, such as 'visual learner', can plant the idea for that student that they are unable to learn unless information is presented in a specific format. This can demotivate students, as they may conclude that they cannot learn a particular material due to the way it is communicated to them.

Ironically, adopting learning styles can also prevent students from taking ownership of their own learning journey, as they ultimately place the onus back on the teacher and their ability to present information in the required format. In the same way students need support to take ownership of their digital capabilities and skills, they also need support to take ownership of advancing their academic skills.

Learning styles ultimately perpetuate poor teaching practice and detract from inclusive and accessible practice –

which can be limiting for a student's educational experience.

Developing more inclusive learning

Prioritising inclusive pedagogies that recognise, value and support all students to succeed is critical for a positive education experience. This requires a combination of multiple means of engagement through activity design, multiple means of representation and multiple means of action and expression.

By applying student-focused learning design throughout the educational journey, teachers can not only consider students' current level of knowledge and ability, but they can also focus on the skills or experiences they want them to gain by the time they complete the class or course.

There are a whole range of learning design frameworks and designs that can be applied to student learning experiences, from a 5-minute micro lecture to a 4-hour online workshop, for example. Frameworks, such as UCL's Conversational Framework and its attendant ABC method, can ultimately offer educators a 'stage', which can be populated through conversations with students and put into action using a range of activity types that enable students to engage with different topics in different ways.

This steers away from the concept that students need to engage in specific, and often simplistic, styles in order to be able to acquire knowledge. And instead, by incorporating learning design frameworks, educators can encourage the kind of complexity that aids learning; by taking a challenging concept and bringing the student on a journey to enhance understanding using a combination of reading, watching, communicating and hands-on activities, for example.

However, we can also take this one step further, building on research from 2018 (Ellis, Gallagher and Peasgood) that illustrates that students studying online, at a distance, displayed distinct learning behaviours.

What are learning behaviours and why are they important?

Learning behaviours are based on the idea that, when students learn, they display core, identifiable behaviours,

which are recognisable and replicable but emphasised or de-emphasised depending on particular factors, such as: personal preference, digital skills, proficiency and the stage students are at in their educational journey.

The research then emphasised that students that display these learning behaviours are more likely to progress positively throughout education. The learning behaviours identified include:

- Goal-setting – setting targets and planning towards these
- Time – managing and prioritising time to spend studying, adhering to a study schedule
- Focus – avoiding clutter and distraction, including digital distraction
- Note-making – making and storing notes, either digitally or physically
- Digital-preferred – having the ability to use technology, whether choosing to do so or not
- Help-seeking – having the ability to connect with other people – either peers or educators – for support with their studies
- Elaboration – having the desire and willingness to seek new information and relate the new ideas this brings to those already known.

Aren't learning behaviours just another kind of label?

Student-centred pedagogies mean understanding the student body holistically – their background, their goals, as well as their abilities. Learning design frameworks offer an important baseline that builds across universal elements, including digital skills, capability, graduate outcomes and authentic assessments. It does a lot of the 'heavy lifting' to provide for educators, so they can develop knowledge building and subject expertise.

However, any new concept can become a damaging label if we're not careful, so intentionality is ultimately key.

The urge to engage in learning styles often comes from a good place. However, differentiation based on a neuromyth will often harm the efforts of both teachers and students.

As educators, we can push back on the idea that in some way this is about modifying student behaviours or training learners to behave in a particular way to ensure success. Learning design augmented by learning behaviours champions differentiation based on knowledge, engagement and skills development – rather than assumptions. It also prioritises putting the student at the centre of their own learning journey, giving them the confidence they need to own it and succeed.

Tim Mangrove

Tim Mangrove started out working for the Education Publishing Comapny of Australia before moving to England and working as a writer and researcher for the Educatin Publishing Company in the UK.

Education at a Glance 2023: What this annual OECD publication tells us about the present situation with VET

Tim Mangrove

Abstract: *Each year the Organisation for Economic Cooperation and Development (OECD) publishes a large volume of statistics that compares the educational systems of the developed countries of the world that are members of the OECD and some developing countries that are OECD partners. This year the focus of the report, Education at a Glance 2023, (or EAG 23 for short), published in September, is Vocational Education and Training (VET).*

The report starts by observing that VET "is vital". It offers an alternative to academic education, equips learners with practiceoriented and employability skills, eases the school-to-work transition, and meets economies' demand for skilled workers. Yet, "too often, VET is seen as a fallback option for students who struggle with school or lack motivation, rather than as a first choice that leads to attractive career paths. To meet labour-market challenges and to guide all learners into the right programmes for their talents and aspirations, we need to make VET more attractive and accessible." This edition of EAG provides a range of new crossnational data on vocational programmes that will help policy makers understand the effectiveness of their VET systems to foster opportunity, inclusion and sustainable growth.

Key words: VET, vocational education, OECD, skills, industry.

Across the OECD, 44% of all upper secondary students are enrolled in vocational education and training; in some countries, such as the Czech Republic and the Netherlands, this rises to over two-thirds. Despite this high share, vocational programmes in many countries are still seen as a last resort.

VET is also key to addressing the accelerating pace of change in demand for skills. Throughout their careers, workers will need to upskill and reskill more frequently, and VET programmes can help bridge this gap. They will need however to remain flexible to meet the needs and preferences of adult learners that often face time constraints due to work and family responsibilities. Online learning and part-time provision can help make VET more accessible.

As Mathias Cormann, OECD Secretary-General, observes in his introductory editorial, ensuring that vocational programmes are steppingstones to further learning also requires stronger pathways between VET and other levels of education. On average across OECD countries, a quarter of VET students are enrolled in upper secondary programmes that do not provide direct access to tertiary education. Even where there is good access, often, we only see a small proportion of graduates of these programmes taking advantage of it during their careers, while students who do continue find they do not always have the tools they need to succeed. To make it an equally valuable alternative to academic education, the OECD advises countries to continue enhancing the quality and perception of VET. Students need to be guided into programmes that match their talents and aspirations. EAG concludes that close partnerships with employers will be key. “These partnerships can ensure VET remains relevant to labour-market needs through industry-validated curricula, enable the integration of valuable work-based learning components into VET programmes and facilitate the school-to-work transition. Presently, there are still too many VET programmes that operate without the close

involvement of employers. For example, less than half of all upper secondary VET students are enrolled in programmes that include elements of work-based learning, and there are several countries where such programmes are almost non-existent."

The OECD recommends that strengthening the involvement of industry in VET should be a priority. "In recent years, many countries have taken steps to work more closely with employers. These reforms include helping employers – especially small and medium-sized enterprises – to provide work-based learning, creating platforms to enable VET providers and industry to exchange knowledge, and involving industry professionals in VET teaching and career guidance."

The OECD acknowledges that national efforts will be most effective when supported by good data and evidence. In contrast to general schooling though, which has benefited in recent decades from considerable coverage in international large-scale assessments, there is comparatively little data available for VET. At tertiary level, the data is almost entirely absent, with no established definitions of academically and professionally oriented programmes. Data that does exist is hard to interpret due to differences in countries' VET and training arrangements. The OECD will continue to try and fill data gaps.

The importance of VET

Vocational Education and Training (VET) is an important and popular element of most education systems in OECD countries, with on average 44% of upper secondary students enrolled in vocational programmes, this year's *Education at a Glance* observes. These programmes vary considerably from country to country, but there are common features that contribute to high-quality vocational education.

One of the most important is the inclusion of work-based learning. This provides many advantages, including allowing students to apply their skills in a practical setting and easing the transition from school to work. However, combined school- and work-based programmes remain a

rarity in many countries. On average only 45% of all upper secondary VET students are enrolled in such schemes across the OECD.

Effective pathways from upper secondary vocational education to higher education are another characteristic of high-quality programmes. While most upper secondary VET students have access to tertiary education upon successful completion of their programmes, a quarter of them are enrolled in programmes that do not provide access to tertiary education upon completion. This sends a powerful negative message to learners and potential learners.

More young adults completing upper secondary education

Upper secondary attainment is often considered the minimum requirement for successful participation in the labour market. However, on average, 14% of all 25-34 year-olds across the OECD had not completed upper secondary education in 2022.

While this share is still too high, it represents a significant improvement compared with 2015, when it was 18%. The share of young adults without upper secondary attainment fell in all but two OECD countries and some countries have made especially significant progress. For instance Portugal has reduced the share of young adults without upper secondary education by 17 percentage points while Turkey has reduced it by 15 percentage points. Higher upper secondary completion rates help create a more educated workforce, with better careers, pay and prospects. Currently, 77% of those entering general upper secondary education complete it on time, and a further 10% complete it within the following two years. The rate is lower for those entering vocational upper secondary education. Only 62% per cent complete their programme on time and another 11% within the following two years. Of the remaining 27%, many are unlikely to successfully complete their programme at all.

VET can play a valuable role in boosting young people's skillsets and employability and can have long-lasting positive effects on their labour-market potential. Countries across the OECD place increasing emphasis on the positive

effects of VET programmes for both individuals and the labour market.

The transition from education to the labour market

The smoothness of the transition from education to the labour market depends on a range of factors: the length and type of schooling pursued, labour-market conditions, the economic environment and the cultural context. Labour-market conditions can shape the outcomes of those who leave the education system, but also their educational choices. When they are unfavourable, young people have an incentive to stay in education longer because high unemployment rates drive down the opportunity costs of education, and they can develop their skills for when the situation improves.

VET is designed to prepare students for entry into the labour market, as well as for higher level studies in some countries. Employment outcomes can shed light on how successfully young people transition into jobs after completing their studies. Particular attention must be paid to young people who are NEET. Not having a job early on in one's working life can have long-lasting consequences, especially when young people experience long spells of unemployment or inactivity and become discouraged from looking for work. It is therefore essential to have policy measures to prevent young people becoming NEET in the first place, and to help those who are to find a way back into education or work.

The extent to which education is combined with employment in early adulthood varies considerably across countries. Overall, 34% 18-24 year-olds who are in education tend to be inactive in the labour market, while 18% combine some form of employment with education, on average across OECD countries.

What the OECD found in the UK

As well as the main *Education at a Glance 2023* report, the OECD produces a series of country notes for most of the countries surveyed in the report. These provide an overview

of the key characteristics of the education system in each state. For the United Kingdom, the country note draws on data from *Education at a Glance 2023*. In line with the thematic focus of this year's EAG, it emphasises vocational education and training (VET), while also covering other parts of the education system.

Highlights the UK country note for 2023

- Vocational education is less common in the United Kingdom than in other OECD countries. In 2022, 16% of 25-34 year-olds had a vocational qualification as highest level of educational attainment compared to 23% across the OECD. In the UK, 58% of 25-34 year-olds had a tertiary qualification as highest level of educational attainment compared to 47% across the OECD.

- The possibility to combine school and work-based learning is one of the greatest advantages of vocational education. In the UK, only 39% of students are enrolled in vocational upper secondary programmes that offer work-based learning components. This is lower than the OECD average of 45%. In some countries, such as Denmark, Germany and Switzerland all or nearly all vocational upper secondary students are enrolled in such programmes.

- The UK is a highly popular destination for international students at tertiary level. With 601,000 international students in 2021, it is the second only to the United States. The number of international students has been growing rapidly in recent years despite the COVID-19 pandemic. While there were 489,000 international students in 2019, their number increased to 551 000 in 2020, the first year of the pandemic, and 601,000 in 2021, the second year of the pandemic.

- Sufficient financial resources are a precondition for high quality education. Sufficient financial resources are a precondition for high quality education. The United Kingdom

invests 4.2% of its GDP into education (from primary to post-secondary non-tertiary), which is above the OECD average of 3.6%. Public investment into education as a share of GDP is 3.7%, above the OECD average of 3.3%. Similarly, private investment, at 0.5% of GDP, is above the OECD average of 0.3%.

- The share of private expenditure on early childhood education and care is exceptionally high in the United Kingdom. With 40% of total expenditure on early childhood education and care coming from private sources, the share is the highest of all OECD countries and significantly higher than the OECD average of 15%. This data reflect the situation before the reforms to childcare announced in March 2023 (https://www.gov.uk/government/publications/early-education-entitlements-andfunding/early-education-entitlements-and-funding-update-march-2023).

- As in most OECD countries, teacher salaries in England and Scotland are lower than salaries of other tertiary educated workers. In England, actual salaries of pre-primary and primary teachers are 15% lower than the average salary of tertiary educated workers. At lower and upper secondary level, the gap is smaller with 6%. In Scotland, teachers at all levels of education earn on average 7% less than other tertiary educated workers. In contrast, school heads are well paid compared to other tertiary workers. At lower and upper secondary level, school heads in England earn 2.17 times the average salary of tertiary educated workers, which is the highest relative salary of all OECD countries.

The output of educational institutions and the impact of learning

- High-quality VET programmes integrate learners into labour markets and open pathways for further personal and professional development. However, the quality and importance of VET programmes differ greatly across

countries. In some countries, half of all young adults (25-34 year-olds) have a vocational qualification as their highest level of educational attainment, while the share is in the low single digits in other countries. In the United Kingdom, 22% of 25-34 year-olds have a VET qualification as their highest level of attainment: 16% at upper secondary level and 6% at shortcycle tertiary level.

- Across the OECD, unemployment rates for 25-34 year-olds with vocational upper secondary attainment are lower than for their peers with general upper secondary or post-secondary nontertiary attainment. This is also the case in the United Kingdom, where 3.6% of young adults with vocational upper secondary attainment are unemployed, compared to 3.8% of those with general upper secondary attainment.

- Although an upper secondary qualification is often the minimum attainment needed for successful labour-market participation, some 25-34 year-olds still leave education without such a qualification. On average across the OECD, 14% of young adults have not attained an upper secondary qualification. In the United Kingdom, the share is lower than the OECD average (13%).

- Workers in the United Kingdom aged 25-34 with vocational upper secondary attainment earn 54% more than those without upper secondary attainment, whereas the earning advantage for workers with general upper secondary attainment is 80%. However, in almost all OECD countries, tertiary degrees provide a significantly larger earnings advantage. In the United Kingdom, 25-34 year-old workers with bachelor's attainment (or equivalent) earn 129% more than their peers without upper secondary attainment, while those with master's or doctoral attainment (or equivalent) earn 152% more.

- Tertiary attainment continues to increase among the working age population. On average across the OECD, tertiary

attainment is becoming as common as upper secondary or post-secondary nontertiary attainment among 25-64 year-olds. In the United Kingdom, 51% of 25-64 year-olds have tertiary attainment, a larger share than those that have upper secondary attainment (30%).

- On average across OECD countries, 14.7% of young adults aged 18-24 are not in education, employment or training (NEET), while in the United Kingdom the corresponding figure is 11.8%. Reducing NEET rates among young adults is a particularly important challenge in all countries because those who become NEET face worse labour-market outcomes later in life than their peers who remained in education or training at this age.

Access to education, participation and progress

- Participation in high-quality early childhood education (ECE) has a positive effect on children's well-being, learning and development in the first years of their lives. In the United Kingdom, 50% of 2-year-olds are enrolled in ECE. This increases to 100% of 3 and 4-year-olds. At age 5, most children in the United Kingdom start primary education.

- The large majority of 15-19 year-olds across the OECD are enrolled in education. In the United Kingdom, 38% of this age group are enrolled in general upper secondary education and 21% in vocational upper secondary education. A further 5% are enrolled in lower secondary programmes and 18% in tertiary programmes. This compares to an OECD average of 37% enrolled in general upper secondary programmes, 23% in vocational upper secondary programmes, 12% in lower secondary programmes and 12% in tertiary programmes.

- Bachelor's programmes are the most popular programmes for new entrants to tertiary education. On average across the OECD, they attract 76% of all new students compared to 74% in the United Kingdom. Short-cycle

tertiary programmes are the second most common level of education for new entrants into tertiary education, but their importance differs widely across countries. In the United Kingdom, they are chosen by 24% of all new entrants.

- Perhaps surprisingly, the share of international students at tertiary level has not been negatively affected by the COVID-19 pandemic in many OECD countries. However, a few countries experienced double digit declines in the share of international students. The United Kingdom is not one of them, as the share of international students increased from 19% of all tertiary students in 2019 to 20% in 2021.

Financial resources invested in education

- All OECD and partner countries devote a substantial share of their domestic output to education.
In 2020, OECD countries spent on average 5.1% of their gross domestic product (GDP) on primary to tertiary educational institutions. In the United Kingdom, the corresponding share was 6.3% of GDP, of which 30% was dedicated to primary education, 16% to lower secondary education, 21% to upper secondary education, 2% to short-cycle tertiary programmes and 30% to bachelor's, master's and doctoral or equivalent programmes.

- Funding for education in absolute terms is strongly influenced by countries' income levels. Countries with higher per capita GDP tend to spend more per student than those with lower per capita GDP. Across all levels from primary to tertiary education, the United Kingdom spends US $16,052 annually per full-time equivalent student (adjusted for purchasing power), compared to the OECD average of US $12,647. Expenditure per student is equivalent to 33% of per capita GDP, which is above the OECD average of 27%.

- The COVID-19 pandemic has created unprecedented challenges for education systems across the world. On

average across the OECD, expenditure on primary to tertiary educational institutions per full-time equivalent student (including expenditure on research and development) grew by 0.4% from 2019 to 2020 (the first year of the pandemic and the latest period with available data). In the United Kingdom, it decreased by 2.3%. This change in expenditure per student is the result of total expenditure on educational institutions decreasing by 0.8% and the total number of full-time equivalent students increasing by 1.5%.

- The distribution of spending between general and vocational upper secondary programmes depends on a variety of factors, such as the number of VET students, the fields of study within VET programmes and the importance given to VET relative to general programmes. In the United Kingdom, 15% of all funding for educational institutions is spent on general upper secondary education and 6% on vocational upper secondary education (11% and 10% respectively on average across the OECD).

- Government sources dominate non-tertiary education funding in all OECD countries, while the private sector contributes 9% of the total expenditure on educational institutions on average. Private funding in the United Kingdom accounted for 13% of expenditure at primary, secondary and post-secondary non-tertiary levels.

- In most countries, private sources accounted for similar shares of expenditure on general and vocational programmes at upper secondary level. However, in a few countries the differences in the share of private funding between general and vocational programmes were wider. In the United Kingdom, the private sector is responsible for 24% of expenditure on general upper secondary programmes and 8% of expenditure on vocational upper secondary programmes.

- On average across OECD countries, more than half of

government expenditure on primary to postsecondary non-tertiary education comes from subnational governments. In the United Kingdom, 60% of the funding comes from the central government, after transfers between government levels and 40% from the local level.

Teachers, the learning environment and the organisation of schools

- Teachers' salaries are an important determinant of the attractiveness of the teaching profession, but they also represent the single largest expenditure category in formal education. In most OECD countries, the salaries of teachers in public educational institutions increase with the level of education they teach, and also with experience. On average, annual statutory salaries for upper secondary teachers in general programmes with the most prevalent qualification and 15 years of experience are US $53,456 across the OECD. In England (UK), the corresponding salary adjusted for purchasing power is US $55,726, which is equivalent to £42, 820. In Scotland (UK), the corresponding salary adjusted for purchasing power is US $55,096, which is equivalent to £42 336.

- Between 2015 and 2022, statutory salaries of upper secondary teachers in general programmes (with the most prevalent qualification and 15 years of experience) declined in real terms in roughly half of all OECD countries with available data. In England (UK), upper secondary teachers' salaries decreased by 3% between 2015 and 2022. In Scotland (UK), upper secondary teachers' salaries increased by 6% between 2015 and 2022.

- On average across OECD countries, in full-time equivalent terms, there are 14 students for every teaching staff member in general upper secondary programmes and 15 students per staff member in vocational upper secondary programmes. In the United Kingdom, in full-

time equivalent terms, there are 16 students per staff member in general upper secondary programmes, higher than the OECD average. In vocational upper secondary programmes, in full-time equivalent terms, there are 25 students for every teaching staff member (above the OECD average).

- The average age of teachers varies across OECD countries. In some countries, the teaching workforce is much younger than the labour force in general, whereas in others, teachers tend to be older. In the United Kingdom, 18% of teachers in general upper secondary programmes are aged 50 or older, compared to the OECD average of 39%. Teachers in vocational programmes are older, with 46% aged 50 or above (43% on average across the OECD).

- National/central assessments (standardised tests with no consequence on students' progression through school or certification) are more common at primary and lower secondary levels than at upper secondary level, while most OECD countries conduct national/central examinations (standardised tests with formal consequence) in the final years of upper secondary education. These national/central assessments and examinations take place at different grades and can have different periodicities, their contents may vary over years and/or across students and are not necessarily compulsory for students. In England (UK), there are at least two national/central assessments at primary level, and none at lower secondary level. At upper secondary level, there are two national/central examinations that each student may be expected to take. In Scotland (UK), there are at least two national/central assessments at primary level, and one at lower secondary level. At upper secondary level, there is one national/central examination that each student may be expected to take.

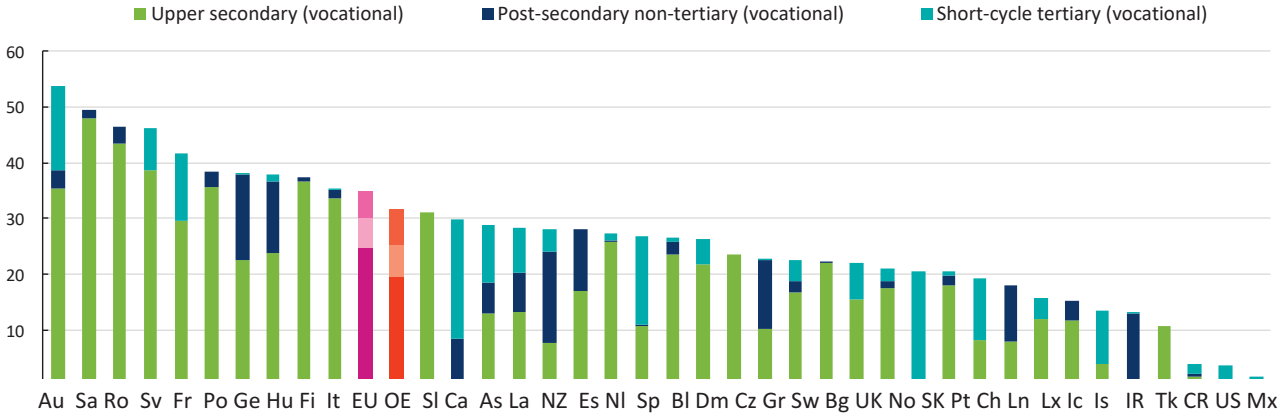
OECD insights from the launch of *Education at a Glance 2023*

An hour after the press launch of *Education at a Glance 2023,*

the OECD laid on a well attended webinar on the report that attracted a large global audience. The Paris-based event had only one speaker, Professor Andreas Schleicher, Director of the Education and Skills Directorate of the OECD. For those who cover OECD events regularly, Professor Schleicher has become famous for his complex graphs that display data from up to 80 countries in a clear and understandable way. We were not disappointed, as those for EAG 23 revealed a range of interesting trends about an area of education, Vocational Education and Training, that, despite its importance, is rarely in the spotlight.

After a brief display of how OECD countries are helping Ukrainian refugees, Professor Schleicher showed a graph (see chart 1 below) that illustrated that countries with a higher share of VET students have higher employment rates

Chart 1. Share of 25-34 year-olds whose highest level of education has a vocational orientation, by level of educational attainment (2022)



Country codes: As = Australia; Au = Austria; Bg = Bulgaria; Bl = Belgium; Br = Brazil; Ca = Canada; Ch = Chile; Co = Croatia; CR = Costa Rica; Cz = Czeck Republic/Czechia; Dm = Denmark; Es = Estonia; EU = EU average; Fi = Finland; Fr = France; Ge = Germany; Gr = Greece; Hu = Hungary; Ic = Iceland; Id = Indonesia; In = India; IR = Irish Republic; Is = Israel; It = Italy; La = Latvia; Ln = Lithuania; Lx = Luxembourg; Mx = Mexico; Nl = Netherlands; No = Norway; NZ = New Zealand; OE = OECD average; Po = Poland; Pt = Portugal; Ro = Romania; Sa = Slovakia; SK = South Korea; Sl = Switzerland; Sp = Spain; Sv = Slovenia; Sw = Sweden; Tk = Turkey; UK = UK (England); US = USA;

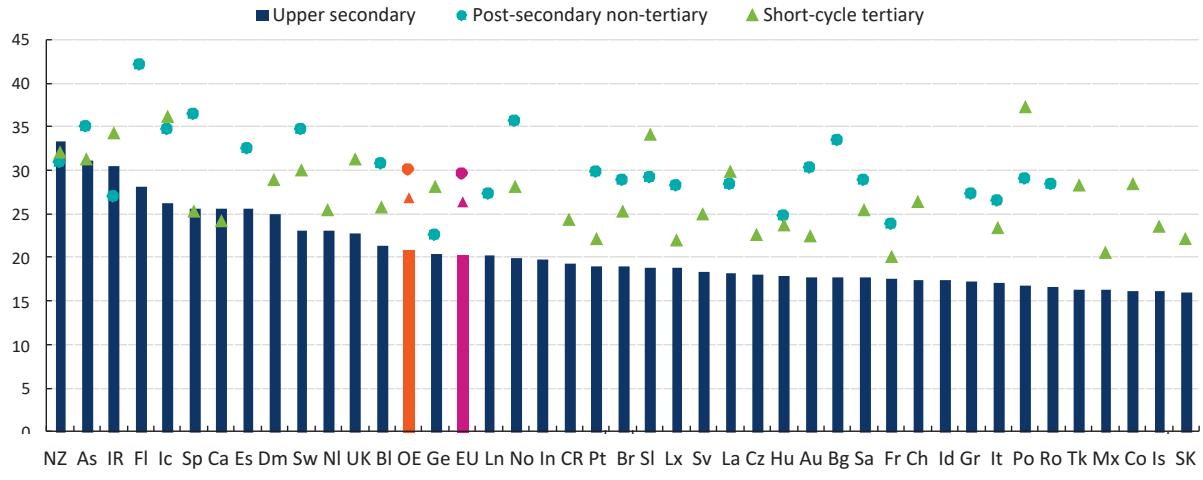
among young adults with upper secondary attainment. There is a clear positive relationship between the relative enrolment in vocational programmes and youth employment, so the more young people choose vocational education, the lower youth unemployment is overall.

Professor Schleicher said that enabling VET teachers to develop and update their skills is an important issue for VET, as technological advances are very rapid in this sector. This has led to some countries introducing reforms in recent years. In most countries VET students are less likely to complete their programme than students in general programmes.

Professor Schleicher stressed the importance of strengthening employer involvement, not just in the delivery of VET programmes through work-based programmes, but also in their design.

Chart 2 The average age of students in VET programmes varies greatly across countries

Average age of students in vocational programmes, by level of education (2021)

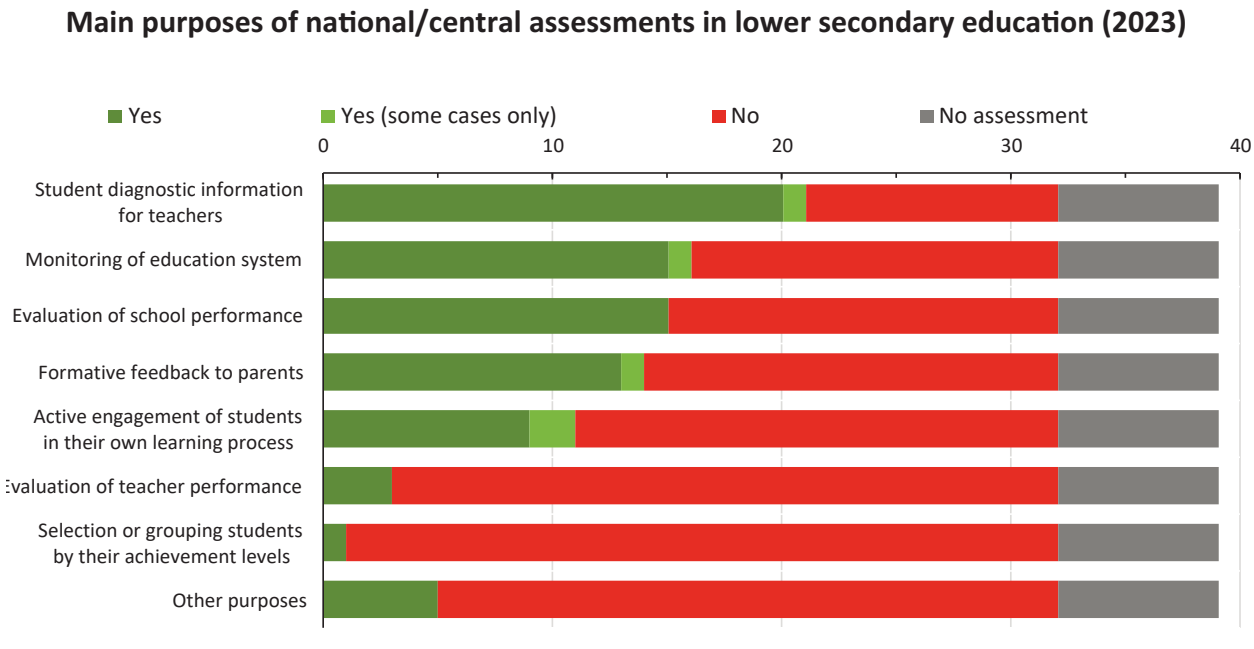


Combined school and work-based programmes are still rare in many countries, although there are wide variations between nations. In countries like Denmark, Hungary, Ireland, Latvia, Switzerland or

Germany, virtually all vocational training combines learning and working. But in countries like Spain, Israel, Bulgaria or Belgium that's still extremely rare. Countries with more students in programmes that combine school and work-based learning have higher employment rates among VET graduates. Yet Professor Schleicher warned: "Too many vocational programmes are dead ends, in the sense that they do not provide access to tertiary education. That's a powerful signal too for young people to avoid such pathways."

One finding from EAG that should worry policy makers is that in most countries the age profile of teachers in upper secondary vocational programmes shows a high number of teachers as over 50 years old.

Chart 3 National assessments are often used to monitor school performance, but rarely evaluate teacher performance



One finding that was not specifically about VET was on assessment. Almost all countries invest in national assessments. Table three above shows the main purpose of national assessments for all OECD member states and partner states. National assessments are often used to monitor school performance, but rarely evaluate teacher performance.

Education at a Glance 2023: Insights from the London and US Launches

John Bangs
Special Adviser to Education International and former Head of Education at the NUT

Abstract: *The OECD's Education at a Glance is launched at multiple events around the world. Each has experts on hand to interpret the report and answer questions from the media. In this contribution we look at the launches in the UK and the USA.*

Key words: VET, vocational education, OECD, skills, industry.

The annual launch of the OECD's *Education at a Glance* is a multi-facetted affair. OECD member countries in time zones across various countries host launches, with Andreas Schleicher, the OECD's head of Education and Skills, straining his hardest to cover most of them. The London launch used to be the centre piece of his efforts but the new OECD SG, Matthias Cormann now requires him back at OECD HQ for its Paris launch.

The OECD's Vocational Education and Training expert Abel Schumann substituted for Andreas this time at the Sutton Trust's London event. I'm always impressed with OECD staff presentations. They are to a very high standard. It must be a corporate requirement and Schumann's presentation was no exception. He's obviously a rising OECD star but we missed Andreas' kaleidoscopic slides.

This year's EAG focussed on VET but also covered a number of other key issues including early years education,

school funding and teachers' pay and conditions.

Schumann went smoothly though the gears. Countries with a higher share of VET students have higher levels of employment. The UK is very low in OECD rankings with only 16% 25-34 year olds having specific VET qualifications with only 20% having any sort of VET attainment. Those in work with VET qualifications earn an average of only 66% of the those with tertiary degrees making the relative earnings of VET workers the fourth worst in the OECD. However, the UK has only 15% of people who are not in education, employment and training (NEETs) which is one the lowest percentages on the OECD scale.

Schumann made it clear that those in work-based learning are at a key advantage in their own learning. In the UK 39% of young people are in work-based learning. Although this doesn't cover higher level apprenticeships, the UK is the only place where work-based learning has declined. Involving employers in designing VET programmes is a win win. VET should also provide pathways to further learning which should be right for all students. While the UK spends a lot on general education it spends less than most countries on VET. The reason for this greater cost is that VET is equipment intensive - a clear implied criticism of the UK's investment in cutting edge technology and equipment.

Schuman then went on to address Early Years education. A key takeaway was that while the UK has high levels of early years provision, along with Columbia, its private spending on early years is the highest in the OECD.

In tertiary, (University education), the UK is second only to the US in international student popularity. The pandemic did not dent recruitment. In fact, there was a minor increase. The highest share of students were from Asia. Short cycle education was growing with the UK being one of the highest providers. The UK's investment in education at 4.2% of GDP is one of the OECD's highest levels. Teachers' pay in England has declined with teachers' pay in Scotland, stagnating. This is in contrast to Headteachers' pay which remains at the highest in the OECD. Schumann said

that pay was not necessarily linked to teacher shortage. Career development and the need to make the job more attractive were key.

Gillian Keegan

Gillian Keegan made a short armour-plated speech designed to prevent any engagement. It didn't address any of the OECD's UK findings. PIRLS had been a UK major success. The UK government would learn from anybody. She'd attended recent G7 and G20 education ministerials. The UK was second only to the US in having educated those who went on to become world leaders. The UK was committed to world class education and an entitlement to VET. T levels were being introduced. Many reforms were making a real impact. Now you saw her, now you didn't…

UCL's John Jerim, the AoC's David Hughes and Teacher Tapp's Laura McInnery made up the subsequent panel. Jerim said that the teacher strikes had been the bane of his life! He noticed that headteachers were going to get the same 6.5% as classroom teachers confirming their status as the highest paid Principals in the OECD. He described them as bastards, although it wasn't exactly clear who he was abusing! He then confirmed his role as resident OECD sceptic by saying that the OECD data was caveated to hell and could it be relied on? Laura McInery then made an important point that the high level of private education simply showed the extraordinary childcare costs shouldered by households in the UK. David Hughes said that Britain must do better on VET. There was no-one to do the jobs and there were lecturer shortages in VET. Productivity was lagging. The median pay for teachers was 41K while lecturers' median pay was 10k less. Abel Schumann concluded by mildly pointing out to Jerim that the EAG data had been checked with a wide range of experts and that uncertain data had been removed. He asked whether we would be better off without the data?

The USA

I dropped into Andreas Schleicher's presentation to the

National Center on Education and the Economy (NCEE) in the United States. He covered most of Schumann's script but added a number of additional points. In the US teachers had historically low levels of pay. Levels of early years provision in the US, although high, had been overtaken by other countries. Education spending was high in most US states. He returned to his often-repeated theme that teachers could be paid better if class sizes were larger citing the Netherlands and Greece as contrasting examples. He also said that the EAG had found that the conspiracy theories among adults declined as their education levels rose. The same relationship applied to civic engagement.

What is interesting about EAG, is that while it contains no policy recommendations the OECD tends to focus on different aspects of its findings in different country presentations. This focus subtly acts as a proxy for policy recommendations - Andreas' highlighting of the relationship between education and conspiracy theories in his US presentation was a case in point.

Keegan's presentation demonstrated the Conservative Government's bunker approach to engagement with the educational community. There was nothing in her speech about teacher policy or addressing the damaging UK data on VET. There was no sense that she was prepared to learn from anyone despite her assertion to the contrary.

However, there was a further point from the EAG launches that did strike me. Teachers' pay remains a highly contested issue. Whether or not head teachers collaring huge amounts of pay in England is worthy of abuse is beside the point. It simply demonstrates how fractured the English education system is with uncoordinated mini federations of schools requiring highly paid CEOs. It's vital we in teacher unions emphasize the obvious. High levels of teachers' pay are essential to highly effective teacher policies. Large classes can lead to teacher exhaustion and attrition. No one component will achieve the retention of highly enthusiastic teachers. It is the combination of conditions, including positive teacher wellbeing and reasonable pay, which lead to a dedicated

workforce of highly effective teachers. This understanding permeates the world's highest performing systems. As Singapore has always said at the International Summits on the Teaching Profession; teachers' pay needs to be taken off the table as a controversial issue.

Peter Elias, Neil, Andy Dickerson and Neil Bachelor

A skills classification for the UK - plans for development and maintenance

Peter Elias and Andy Dickerson with Neil Bachelor

Abstract: *Skills are at the heart of some of the UK's most pressing challenges: reducing inequality, improving our productivity, and implementing the net-zero transition. Ranging from the need for basic literacy and numeracy at work, to the application of complex scientific, medical, and technical expertise, the identification and development of the skills required for the UK's future labour force is vital. The authors outline what is needed for a skills classification for the UK, with plans for development and maintenance.*

This is an abridged version of the Department for Education Research Report RR 1372 of the same nsme.

Key words: Skills, planning, classification, labour market.

Emeritus Professor Peter Elias CBE of the Institute for Employment Research University of Warwick. He is Deputy Chair of the Administrative Data Research Board of the UK Statistics Authority.

Professor Andy Dickerson is an applied economist with research and policy interests in the operation and functioning of labour markets

Neil Bachelor is a director of Omnifolio C.I.C.

Despite the importance of the requirement for the measurement and assessment of skills in the UK, that remains fragmented and deficient, and the language used to describe skills is inconsistent and unnecessarily complicated. The sharing of information on skills between key agencies is hampered by these problems and a standardised classification of skills is thus long overdue. This report details how the functional requirements for a classification of skills were identified and sets out how it will be developed to meet these needs.

Skill classifications are available in other countries, but adapting them for use in the UK would previously have been a slow and prohibitively expensive process. Recent advances in

Natural Language Processing (NLP) tools present a timely opportunity to combine and refine the best of the existing provision, adapting it to our needs to develop the world's best classification of skills. In turn, this would generate positive economic benefits by making the UK's workforce more adaptable, help training and education providers to be more efficient, enable employers to be more innovative and flexible, and, by simplifying re-entry and progression within the labour market, enhance employment opportunities.

What is a classification of skills and why do we need one?

A classification of skills is essentially a comprehensive list of all the skills and associated knowledge required to carry out job-related tasks. When linked across occupations, qualifications and training courses, a classification becomes a powerful tool which can serve a variety of purposes, from job analysis and employee recruitment to careers advice and labour market analysis. It enables better matching between the needs of employers and the skills available in the workforce. It means that a 'skill shortage' can be both defined and identified with greater precision, enabling qualification and training providers to plan for the provision of specific skills. It provides careers guidance specialists with the tools and language to advise labour market entrants on the ways to achieve specific career pathways. From a statistical perspective, it makes possible the linking of information on skills from various sources.

When entering or moving within the labour market, individuals may want to compare the skills they already have or are interested in gaining with those required in specific jobs. A Standard Skills Classification (SSC) can help ensure that the information on skills used by employers and employment agencies in job vacancy advertising will correspond to that used by careers guidance specialists. Qualification and training providers will be able to describe the skills generated or enhanced via education and training using the same common terminology. Finally, both labour market and policy analysts, and education and training providers have an interest in identifying skills shortages and finding ways to address these.

Without a classification of skills linked to occupations and qualifications, these skill gaps cannot easily be measured.

Evidencing the need for a skills classification

The need for improved and more detailed information on skills has never been greater. Between June 2022 and March 2023, the 2022 UK Employers Skills Survey collected basic information on skills shortages via a telephone survey of almost 73,000 employers. This revealed that around a quarter (23%) of all employers in the UK had a vacancy at the time of the survey. One in ten (10%) had a skill-shortage vacancy (a vacancy that is hard to fill due to a lack of skills, qualifications, or experience among applicants). What the survey could not reveal was the nature of these skills in short supply.

While the need is apparent, what form would a Standard Skills Classification take and how would it be used? To assess and prioritise the requirements for a classification and to inform these questions, a survey of stakeholders was conducted, supplemented by detailed interviews with key users. Approximately 200 organisations were contacted, either because they currently use a classification of skills, produce skills information, develop career profiles, regulate standards for qualifications and/or training leading to skill formation, or have a general need for information on skills. In total, 109 organisations engaged with the online survey and the information presented below is based on a summary of these responses.

Key findings from the surveys and interviews include:

- The need for a common language when sharing information on skills was the single most important requirement.
- Despite widespread use of international classifications such as O*NET (US) and ESCO (EU), current needs are not being met. Common concerns included mismatches between definitions from these sources and their application within the UK labour market, and the lack of clarity and consistency of terminology.
- Detailed skill descriptions, short skill names, and

multiple levels of aggregation within the classification were also seen as particularly important.

- Half of all responding organisations currently pay commercial providers such as Lightcast and Adzuna for skills information. This rises to over three quarters for local and regional skills bodies such as Local Enterprise Partnerships (LEPs) and Mayoral Combined Authorities (MCAs).

Table 1 shows that two thirds of all respondents stated that a standard skills classification would improve data sharing with other organisations, and a high proportion thought it would facilitate innovation and the development of new services.

Table 1: Perceived benefits of a Standard Skills Classification

Benefits to stake holders	% Agreement
Improved data sharing	67%
Simplified innovation	57%
Improved quality of services provided	45%
Improved quality of services received	37%
Reduced effort maintaining existing skills frameworks	36%
Improved training/management practices	32%
Reduced costs	27%
Improved quality and reach of recruitment	22%

Further detailed discussions with stakeholders were held via a series of workshops and online meetings. Strong support for a standard skills classification was unanimous. Again, the need for a common framework and terminology for skills was emphasised, allowing users to align their proprietary frameworks and reduce processing difficulties and costs when merging with data from other sources.

Evidencing these needs, the 2022 Employer Skills Survey indicates the challenges facing the UK skills system are

growing. For example, since 2017:

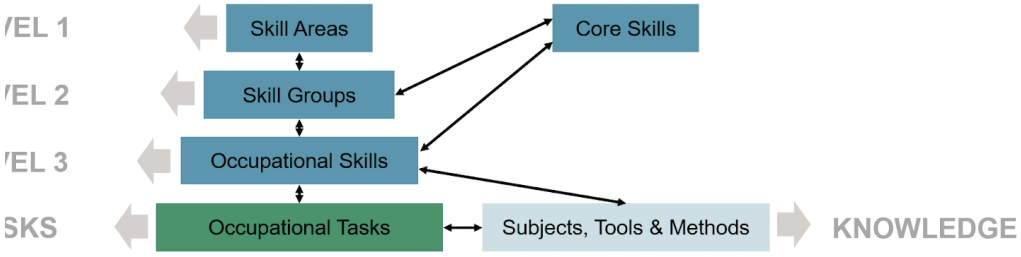
- Organisations with at least one skill-shortage vacancy has gone up from 6% to 10%.
- The proportion of employees judged to be not fully proficient by their employer has gone up from 4.4% to 5.7%.
- Employers providing training to their staff in the previous 12 months has gone down from 66% to 60%.

What would a skills classification look like?

The proposal is to construct a hierarchical classification of skills as illustrated in Figure 2 below. This will enable use of the classification at a variety of levels of aggregation depending on different users' needs. The skills classification will incorporate three hierarchical/nested levels: Skill Areas, Skill Groups, and Occupational Skills. There will also be a set of overarching Core Skills, defined as abilities utilised in most/many occupations. Underpinning the classification will be a set of occupational tasks and a range of subjects, tools, and methods which collectively encapsulate the 'knowledge' that is used within jobs.

Figure 1: Hierarchical structure of the proposed UK skills classification

How will it be built and when will it be ready?



The UK lags behind other national and international organisations that have developed classifications of skills. For many years, the US has been developing and maintaining a system known as the US Occupational Information Network (O*NET). Similarly, the EU has the European Skills, Competences, Qualifications and Occupations (ESCO) framework. More recently Australia, Singapore, Canada and the Netherlands have all embarked upon significant work programmes to develop skill classifications. However, this slow start by the UK now means that we are well positioned to draw information from these sources and benefit from the extensive research and development work already undertaken elsewhere. Recent advances in Natural Language Processing (NLP) tools using Large Language Models (LLMs) also mean that it is timely to do so.

The latest NLP tools will be used to combine (and deduplicate) the best of existing international skills classifications such as O*NET and ESCO with UK job profile libraries, including content from the National Careers Service and IfATE Occupational Standards. Current vacancy, job description and CV data would then be used to validate and refine the outputs to produce a UK-specific classification.

While the development of a full Standard Skills Classification is envisaged to take 18 months, a 'beta version' will be made available to users for assessment and testing within the first six months.

Use cases and key benefits of a standard skills classification (SSC)

Below are specific examples of how the SSC will benefit different user types such as job seekers, employers, and Local Enterprise Partnerships. Further assessment and analysis of these use cases is presented in Section 5.

Job Seekers

The SSC would help those looking for a new job or career to:

- Identify their transferable skills – An online tool based on the SSC would allow individuals to upload their CV or enter

their basic work history and generate a personal skills profile.

- Evaluate their career options – Develop a personal skills profile, either online or with the support of a work coach, which could be used to filter jobs and identify a range of suitable career options for individuals. These could include short-term employment opportunities that would provide an interim step to achieving their longer-term goals.
- Identify their skill gaps – If considering a specific career change, a system comparing their skills profile with a target career could identify specific skills and/or knowledge gaps and then automatically aggregate these to develop a personal development plan.
- Choose the best course(s) to close any gaps – A personal development plan would allow them to check formal and informal course options and compare timing, costs, and requirements. For example, they may find that there are good local opportunities in another role, that their skill gaps against this role are minor, and that they would be able to fill those gaps by completing relevant courses online and at minimal cost.
- Consider opportunities if living elsewhere – The SSC would allow individuals to identify regions with more demand for their skills and therefore better future employment prospects.

Employers

The SSC would help organisations to:

- Analyse skills within their current workforce – Basic employee role data (probably already held within their HR system) could be used to conduct a company-wide skills audit. This would allow organisations to profile the diversity, quantity, and level of skills they already have at their disposal.
- Identify a skills plan – When planning expansion or an operational transition, this skills profile would enable them to quantify and prioritise skill shortages. It would also help them to systematically assess whether any employees are underutilised and would be more productive in a different role. This approach could also be applied to support specific

business decisions. For example, if a firm wanted to use advanced robotics to automate more of their manufacturing process, the SSC would help identify which new skills are required to operate and maintain the new equipment.

- Adopt skills-based recruitment – The common language of the SSC would allow employers to articulate to recruiters and applicants exactly what they are seeking in terms of skills. It would also allow them to evaluate and sift candidates more objectively and efficiently.
- Inform strategic decisions – Fundamental business decisions often have a skills element that SSC-based labour market information (LMI) could help improve. For example, should a company expand on the same site or will regional differences in the supply of skills they need make it easier for them to scale production elsewhere or use multiple production facilities instead.

Local Enterprise Partnerships (LEPs)

The SSC would help LEPs and other support agencies to:

- Analyse skills within the local workforce – An SSC linked to occupations would enable a local skills audit to be compiled based on the employment profile of the region.
- Identify future skills needs – based on current and future employment patterns in the region (e.g. using projections from the DfE Working Futures series), the LEP could identify future skills demand, and thus potential future skill shortages, surpluses, and the key routes of transition.
- Engage effectively with local training providers – A common language for skills would enable LEPs to articulate clearly to training providers the current and anticipated future skill needs in the region.
- Attract future investment and employers – A common language for skills would also enable LEPs to provide organisations that are considering investing in the area details on current and future skills supply, and to work with them to devise plans to address any specific requirements or skill shortages.

Select Committee Reports

We continue our series of reviews of all parliamentary select committee reports on education, which we started in volume 25 beginning with January 2018. In this issue we review all reports published from August to December 2022.

Support for Vulnerable Adolescents, House of Commons Public Accounts Committee, 37th Report of Session 2022/23, HC 730. Wednesday 22 February, 2023.

Diversity and Inclusion in STEM, House of Commons Select Committee on Science and Technology, fifth report of Session 2022–23, HC 95, Friday 24 March 2023.

The Future of Post-16 Qualifications, the House of Commons Education Committee, Third Report of Session 2022–23. Report, together with formal minutes relating to the report. HC 55. Published on 28 April 2023.

Support for Vulnerable Adolescents

Support for Vulnerable Adolescents. Report, together with formal minutes relating to the report, Public Accounts Committee, Thirty-Seventh Report of Session 2022–23, HC 730. Published on 22 February 2023.
https://committees.parliament.uk/publications/34008/documents/187189/default/

The report by the House of Commons Committee of Public Accounts (PAC), Support for Vulnerable Adolescents, revealed that there were approximately 7.3 million adolescents aged 9 to 19 years in England, and some were vulnerable to serious, adverse, avoidable outcomes, such as physical or mental harm (including exploitation), which led to entry to the care system; contact with the criminal justice system; periods of not being in education, employment or training, or severe mental health difficulties.

The PAC acknowledged that most adolescents did not experience adverse outcomes, but those that did were not identified and provided with effective and timely support. The report said that the estimated lifetime social cost of adverse outcomes, for all children who had ever needed a social worker, was £23 billion a year.

The Committee pointed out that although universal services delivered by local organisations were the first line of public support, for some adolescents with complex and overlapping needs that would not be enough, and specific programmes would be needed to provide additional support to promote their welfare, help them achieve better life outcomes and avoid costly interventions and support later.

The report noted that several government departments had lead policy responsibilities that aimed to address the challenges facing vulnerable adolescents and

those around them, for which they funded specific programmes to be delivered by local bodies. But because of the complexity and variety of the challenges involved, departments did not treat vulnerable adolescents as one group with a single, specific cross-government policy programme.

The Committee argued that the Government had not demonstrated that it understood the cumulative scope and impact of avoidable adverse outcomes for vulnerable adolescents, and when vulnerable adolescents were not identified and provided with effective and timely support the costs to themselves, in lost life chances and society, could be significant.

The PAC stressed that, in particular, when their needs were complex, due to overlapping factors, understanding was still limited, and for example, 72% of children sentenced in 2019–20 had been assessed as having a mental health concern and research published in 2022 had found that 81% of adolescents cautioned or sentenced had at some point been persistently absent from school, compared to 44% of the whole pupil population who had ever been persistently absent from school.

Lack of departmental understanding

The report pointed out that while the Government had claimed to understand the overlaps, a National Audit Office report had collated a wide range of information from across government for the first time about the adverse outcomes facing the most vulnerable adolescents. The Committee said that it was concerned about the Government's apparent lack of focus on the very important cohort and the lack of measures to know whether its programmes were improving outcomes for vulnerable adolescents.

The PAC recommended that within six months, the Government should set out the measures it would use to track whether outcomes for vulnerable adolescents were improving, and annually thereafter, the Government should produce a report on progress in improving outcomes for

vulnerable adolescents.

The Committee warned that there was "reluctant leadership" of the challenges faced by vulnerable adolescents which undermined ownership of the problem, and it was not clear how many government departments and local agencies played a role in supporting vulnerable adolescents.

The PAC noted that the Vulnerable Children and Young People Strategy Board had recently been repurposed to provide a co-ordinating picture, to bring together the Government's understanding of complex children and young people. But the MPs added that while that was a start, the Board had only met once and it was too early to say what role it would play in helping to unify support and identifying and helping to address gaps and overlaps that impacted on vulnerable adolescents.

The Department for Education had told the PAC that its overarching responsibility should not translate into to a single system, but the report pointed out that there was a lack of common definitions or language that would help young people navigate the disjoined systems and receive the support they needed.

Although the Government had specific programmes to support specific vulnerabilities and joined up individual programmes between departments, the Committee agreed with the current Children's Commissioner that collaboration was not taking place at the strategic level that would be needed to provide the proper support for vulnerable children and young people.

The PAC therefore recommended that within six months, the Department for Education should set out its accountabilities for vulnerable adolescents, the terms of its leadership role and how strategic planning and oversight would work.

Multi-agency safeguarding partnerships

The report pointed out that while in some places multi-agency safeguarding partnerships may work well, in other places, they did not, and in May 2022 the Child Safeguarding

Practice Review Panel had found that multi-agency safeguarding arrangements were not yet fit for purpose everywhere, and they were more fractured and fragmented than they should be due to weak links between the leadership and the front line.

Although the three statutory partners, the police, health and local authorities, had a shared and equal duty to protect children and young people, the Committee was concerned that if no one was solely responsible, the buck would be passed. The report noted that education was not a statutory partner and the independent review of children's social care had already recommended that schools should be named as a fourth safeguarding partner.

The Department for Education had told the Committee that it was continuing to improve multi-agency safeguarding arrangements and that it considered that professional curiosity and good quality leadership across the three partners were key. The DfE had also told the Committee that it worked area by area to understand where there were risks and it had recently restructured to bring its regional focused teams together. However, the Independent Children's Social Care Review had found that the existing mechanisms for independent scrutiny to be "relatively weak" and it is not clear how the Department knew where to focus its support.

The PAC recommended that within six months, the Government should set out how it planned to improve the way multi-agency safeguarding partnerships worked.

The report noted that adolescents may be exposed to "extra-familial" harms which occurred outside the home, such as sexual exploitation, modern-day slavery, serious violence and criminal exploitation. The Committee argued that although the Department for Education had acknowledged that the care system had been designed to respond to harm originating from inside a family, the Committee had been told that there was a growth in older age groups and an increasing occurrence of extra familial harms. The report warned that social work practice and the design of the care system was

still adapting to known and changing risks to vulnerable young people.

Although the Department for Education had told the Committee that it did evaluate what worked, the PAC had found that good practice did not reach everywhere, and social work practice was still variable. The report noted that despite the learning available it was unclear how lessons were disseminated to people who were working directly with vulnerable adolescents to ensure that necessary actions were taken by all those who played a role in safeguarding children. The Department had acknowledged that it would be helpful to build lessons into national standards, to reduce the reliance on every individual within the system identifying and acting on lessons learnt.

The PAC recommended that within six months, the Government should set out how it would ensure that learning from national reviews was built into day-to-day practise, including supporting appropriate and timely data sharing, by those working with vulnerable adolescents. The PAC also recommended that, in its response to the Care Review, the DfE should set out how the revised care system would more effectively address the risks to adolescents posed by extra-familial threats.

Mental health issues

The Committee said that it was extremely concerned about the waiting time for children to receive support for mental health issues and about the proportion of adolescent girls seeking help. It cited a survey which had found that nearly 1 in 5 of 6- to 16-year-olds in England had had a probable mental health disorder in 2021, and it had also found that almost 40% had experienced a deterioration in mental health since 2017. In addition, 13.5% of 11- to 16-year-olds had felt that their lives had been made “much worse” by COVID-19 restrictions.

But the Committee argued that support was not meeting children’s need and some children with mental health issues had had to wait a very long time to start

treatment. In 2020–21 the average waiting time for children to start treatment for their mental health issues at different health bodies had ranged from 6 days to 81 days, and more than 22,000 (5%) of children and young people had waited for more than 12 weeks.

The report pointed out that the proportion of adolescent girls known to be in contact with secondary mental health services was far greater than for boys, for example, 18% of 16-year-old-girls were in contact with secondary mental health services, compared to 11% for boys.

The Department for Education had told the Committee that there had been additional funding, some of which had been particularly focused on eating disorder services, because it had seen the waiting lists for those rise and a pandemic-related impact, particularly on young girls. There had also been an NHS England consultation, which had closed early in 2022, on introducing waiting time standards for access to community and A&E mental health care. However, the standards had not yet been implemented.

The PAC recommended that the Government should report back to the Committee within six months on progress on the implementation of access standards for community and A&E mental health care.

Children in youth custody

The Committee had been concerned that the Ministry of Justice and Home Office had not seemed to be curious about the increase in the proportion of children from ethnic minority background in youth custody and there appeared to be no current plan to address the situation.

The report observed that while the number of children in youth custody across all ethnicities had reduced by 73% from 2010–11 to 2020–21, the proportion from ethnic minority backgrounds had increased (from 32% to 53%). Furthermore, a recent HMI Probation report had found that young black children, aged 10–17, were 2.8 times more likely come to the attention of the youth justice system as would be expected given the proportion of black boys of that

age in the general population, while the numbers of mixed heritage children in the youth justice population had doubled since 2010.

The report said that although the disproportionate outcomes had been highlighted in previous reviews dating back many years, the Ministry of Justice and Home Office still could not fully explain the disparity. The Ministry had told the Committee that there were a range of complex "societal factors" at play, but they had acknowledged that some interventions may be introducing disparity, such as the police's use of stop and search and decisions about whether to remand someone in custody ahead of their trial.

The PAC recommended that the Ministry of Justice and Home Office should report back within six months on what they understood about what worked, and what action they would take to understand why ethnic minority children made up over half of all children in custody.

The Committee argued that sharing exercises needed to be better used to understand the support vulnerable adolescents needed, as the poor outcomes experienced by vulnerable adolescents often overlapped. For example, 72% of children sentenced in 2019–20 had been assessed as having mental health concerns, and one in five of 16–24-year-old young people not in education, employment or training had had a mental health condition in 2021.

The Department for Education had told the Committee that the overlaps between different vulnerabilities were complicated and that data sharing helped them identify overlapping groups of vulnerable adolescents who needed support. But the Committee argued that without better data sharing it would be difficult to understand how all the different risk factors and vulnerabilities overlapped, and it added that there was scope for better understanding of all overlapping needs.

The report noted that departments had plans to improve the join up of different government data sets on vulnerable adolescents, including by linking anonymised health and education data. The Committee said that whilst

that was positive, the Government did not have any concrete plans for how the exercise would be used to better understand the risks that vulnerable adolescents faced so that it could provide more targeted support.

The PAC recommended that within six months, the Department for Education should take the lead in coordinating and setting out an agreed approach as to how departments would collect and use data to understand the pathways to adverse outcomes for vulnerable adolescents.

Diversity and Inclusion in STEM

Diversity and Inclusion in STEM, House of Commons Select Committee on Science and Technology, fifth report of Session 2022–23, HC 95, published on Friday 24 March 2023.
: https://committees.parliament.uk/committee/135/science-and-technology-committee/news/

The House of Commons Science and Technology Committee has called for action on underrepresentation in STEM that would "truly move the dial." The report, Diversity and Inclusion in STEM, highlighted the acute underrepresentation of children from Black Caribbean backgrounds, and others, in STEM subjects throughout education. The report also highlighted the low uptake of physics and computer science in girls at school.

The Committee called on the new Department for Science, Innovation and Technology to make improving diversity and inclusion in STEM part of its mission, and to set out how it intended to achieve that. It also recommended a series of changes to education policy to improve diversity and inclusion in STEM, following the Prime Minister's commitment to grow STEM pupil numbers, including to:

- Set a target for every child to be taught STEM subjects by teachers with subject-specific qualifications by 2030.

- Update the national curriculum to include more diverse examples, such as female scientists.

- Widen access to triple science at GCSE.

- Introduce a requirement to study Core Maths or Core Science-type course for pupils who did not continue with a STEM subject post-16.

- Ofsted to collect and report on the disparities in subject take-up and attainment across gender, ethnic background, and socio-economic background characteristics as part of its inspection criteria.

- Set out what further interventions were planned to address teacher shortages.
- Expand schemes to bring more STEM professionals into teaching roles.

The Committee's recommendations for STEM education included:

- The Committee's inquiry had found "no consensus" on the causes of the low uptake of A-level maths (39%), physics (23%) and computing (13%) amongst girls. However, witnesses had told the Committee that the imbalance had reflected longstanding prejudices in society as to which subjects girls "should" study, while other witnesses said that it was girls' preference, based on career choices and it could be caused by boys choosing arts and humanities subjects less.

- The report concluded that current STEM-focused bursaries would not prove "anywhere near sufficient" to address longstanding teacher shortages, particularly in physics and computer science. The report quoted a witness who had concluded that "even if two thirds of everyone taking a physics degree were recruited into teaching, the target would only just be hit.

- As schools in disadvantaged areas were less likely to have subject specialist teachers, the Committee asked the Government to set a target for every child to be taught STEM subjects by teachers with qualifications in the subject by 2030.

- The Committee's inquiry had received evidence of underrepresentation of people from Black Caribbean backgrounds across all STEM subjects and at all levels: fewer

Black Caribbean students studied Triple Science than any other ethnic background; 15,655 additional black teachers would be needed to bring teacher diversity in line with that of pupils; there were no black male postdoctoral physics researchers in the UK; in one research council committee, there were no attendees who disclosed their ethnicity as Black over the five-year period.

- The Committee's inquiry had heard about significant underrepresentation of girls in physics and computer science; girls made up only 23% of physics and 13% of computing A-levels. MPs highlighted progression issues for women: in biology women accounted for 57% of the UK-domiciled total but at professor level, the percentage fell to 29%; only 11% of UK maths professors are women.

- The Committee had also heard in evidence that just 25% of disadvantaged pupils achieved a good pass in GCSE maths and 3.8% of academic staff in STEM had a known disability, less than in other fields.

The future of post-16 qualifications

The Future of Post-16 Qualifications, the House of Commons Education Committee, Third Report of Session 2022–23. Report, together with formal minutes relating to the report. HC 55. Published on 28 April 2023 by the House of Commons. https://committees.parliament.uk/publications/39333/documents/193104/default/

The House of Commons Education Committee noted that in 2021, 62% of young people in England had gained a level 3 qualification by the age of 19, the highest proportion on record, however, as almost 40% of young people were not qualified to that level, the nation's ability to tackle skills shortages and address productivity challenges had been impeded.

The report called on the Department for Education to set an ambitious target for at least three-quarters of young people to be qualified to level 3 by 2030, and within the target there should be a concentrated effort to ensure that skills for the future economy and the skillsets required to meet the net zero and nature gain challenges were prioritised.

T-Levels

The Committee strongly welcomed the aspiration for T-Levels to be a rigorous and ambitious new qualification which would level up the nation's technical education system. The report pointed out that while T-Levels had been developed alongside 250 employers and they offered a prestigious, high-quality route for students to gain the skills needed by employers and the economy, the Department had shifted from early emphasis on skilled employment as the qualification's primary outcome. The Committee concluded that although the move would add complexity for stakeholders, it fully supported the

Department's decision to award T-Levels UCAS points, which would enable students to keep their progression options open.

The report noted that there remained some uncertainty in terms of progression options for T-Level students, and the Committee had heard that T-Level students were unlikely to have acquired the occupational competency and experience needed to begin a level 4 apprenticeship.

The Committee said that while Higher Technical Qualifications (HTQs) would l offer an important progression route for T-Level students, their development had lagged behind T-Levels, and they would not be fully rolled out until 2025. However, the report pointed argued that it was encouraging that 134 higher education providers had indicated that T-Levels would be suitable for entry onto a minimum of one course. But the Committee pointed out that, T-Level students may find that there were eligible for a very limited range of higher education courses due to the specialised nature of their qualification, which may not be obvious to the student until it was too late.

The Committee said that some universities were requiring an A-level alongside a T-Level for entry to degree programmes, and the it was concerned that Department guidance on whether an A-level could feasibly be studied alongside a T-Level appeared inconsistent. The Committee called on the Department to work with universities to ensure that they fully appreciated the value of, and commitment required by T-Levels and that they did not therefore specify unreasonable entry requirements such as specific A-levels on top of a T-level course. The Committee urged the Department to work with the Institute for Apprenticeships and Technical Education to clearly map and publish progression opportunities for T-Level students, to help to reduce uncertainty among students, parents and employers, and demonstrate how T-Levels could provide a springboard to further study, training and work.

The Committee also urged the Department must work with the sector to align T-Levels with level 4 apprenticeships,

such as, developing a bridging course that would enable T-Level learners to move onto a level 4 apprenticeship. The Committee called on the Department to set out how it would encourage progression from T-Levels onto Higher Technical Qualifications, particularly given the key strategic role qualifications at level 4 and 5 played in meeting the nation's skills needs.

The Committee asked the Department to publish data on the education, apprenticeship, and employment destinations for the first cohort of T-Level students at the earliest opportunity. The Committee pointed out that while department destination measures were usually published two years following the completion of 16–18 study, it recommended that the Department should fast-track the data, to provide an interim picture ahead of the expected official publication in 2024.

While the report pointed out that T-Levels were a rigorous qualification, which was key to ensuring they equip students with the gold-standard technical skills required by employers and the economy, the Committee did not believe that there was the right balance of rigour and accessibility.

Early evidence had indicated that schools and colleges were setting high entry requirements for T-Levels, and as a result, the Committee was concerned that T-Levels could be restricted to a small pool of academically gifted students, who had a specific employment goal in mind by age 16, which was particularly concerning, as the programme had rightly attracted over £1 billion of public funding.

The report warned that T-Levels offered no pathway to a lower level of qualification for students who might otherwise drop out completely, which made it a high-risk option for students, particularly in comparison to existing post-16 options such as A-levels or Applied General Qualifications, where a learner could drop a subject, or move to a smaller programme, and still gain an accredited, internationally recognised qualification.

The Committee called on the Department to consider the case for micro-accreditation for T-Level learners who did

not complete their full programme of study, by allowing some form of credentialling for partially completed T-Levels to encourage more learners to take them up.

The Committee was also concerned that too many learners on the T-Level Transition Programme did not progress on to a T-Level. While the reasons were unclear, only 14% of the first Transition Programme cohort had progressed to a T-Level, and just under half (49%) had been able to progress to a level 3 qualification. The Committee said that the situation raised questions as to whether the Transition Programme was fit for purpose, and whether suitable students, who could realistically meet the demands of the full T-Level, were being placed on it.

The Committee said that it would expect an effectively functioning Transition Programme to support at least half of learners to progress to the full T-Level, and virtually all Transition Programme learners should be able to move onto a level 3 qualification by the end of the year. The Committee called on the Department to publish annual statistics on the conversion rate from the Transition Programme onto the full T-Level, to provide a breakdown of what level of study learners moved onto, and whether any had dropped out of education altogether.

The report pointed out that although the Department had invested in communications and marketing to promote T-Levels, the Committee had heard that its efforts had fallen short of what was needed to effectively raise local and national awareness of T-Levels among employers, students and parents. A 2021 Department survey had showed that just under a quarter (24%) of employers had been aware of T-Levels, while other research had indicated that 63% of young people had not heard of T-Levels. There had also been significant and concerning regional Variation, as 49% of young people in London had heard of T-Levels, compared to 29% of young people in Yorkshire and the Humber.

The committee stressed the need for the Department to improve recognition of T-Levels among students, parents and employers through a T-Level awareness campaign to

raise the profile of the new qualification at a national and local level. It also called on the Department to monitor the success of its T-Level marketing and communications strategy through the publication of annual statistics, at national and regional level, on T- Level awareness among young people and employers.

The Committee urged that Department to work with small and medium-sized businesses as well as with the network of careers hubs supported by the Careers and Enterprise Company to promote T-Levels to a wider audience. The report stressed that regional variation in economic activity remained a significant obstacle to the success of T-Levels, and evidence to the Committee's inquiry had described T-Levels as "a city-centric initiative", and "the urban qualification." The Committee argued that there was a risk that young people living in or near more affluent urban areas with access to a range of different sectors and industries, would be the main beneficiaries of T-Levels, while those from rural, coastal and disadvantaged areas would be left behind. The Committee added that, unaddressed, the lack of equitable access to placements would undermine the Government's levelling up ambitions, and hinder its ability to tackle regional and national skills shortages.

The report noted that the Department had not published its own forecast of the number of industry placements that might be required once T-Levels were fully rolled out, and the Committee argued that an acknowledgement of the scale of the challenge was needed, particularly as it had heard that the numbers of T-Level placements required could reach 250,000, and up to 43,500 placements would be needed in the engineering and manufacturing sector alone by 2025.

The report stressed that the sheer scale of the undertaking posed a threat to the success of T-Levels, which would rest on the availability of sufficient high-quality placements. The Committee called on the Department to publish forecasts on potential industry placement demands and shortfalls as soon as possible, at national and regional

level.

The Committee warned that scaling up T-Level placements could have inadvertent negative consequences for other parts of the skills agenda by reducing employers' willingness to continue with existing programmes such as apprenticeships, and supported internships which also required placements.

The Committee had welcomed the Department's introduction of a hybrid model for T-Level placements in certain subjects, which could help to reduce the travel burden for students, and widen access to placements. The Committee added that it also reflected the preferences of some employers who had called for greater placement flexibility to match the increased uptake of hybrid working patterns. However, the Committee warned the Department to take great care to ensure that the reform would not dilute the workplace component of T-Levels, or detract from the overall student experience.

The report pointed out that T-Levels were less accessible and less manageable for some groups, including lower attaining students, ethnic minority students and students with SEND. It added that despite T-Levels being developed with the input of 250 leading employers, the DfE's research had showed that almost two-thirds of employers were not yet interested in providing a T-Level replacement, and where interest had existed it appeared to have declined.

The Committee had found that there were also many areas of the country where there were not yet enough employers near to colleges in regional, rural and left behind areas to accommodate learners on T-Level placements. The Committee urges the Department to closely monitor how learner satisfaction, attainment and progression for those undertaking hybrid T-Level placements compared with those undertaking fully in-person placements, and evaluations should be published annually. The report noted that, up until July 2022, employers could claim £1,000 for every T-Level industry placement, and it urged the Department to reinstate the incentive for small and medium enterprises, and

microbusinesses, to facilitate their participation with T-Levels.

Applied General Qualifications

The Committee had welcomed the Department's ambition to simplify and de-clutter post-16 education by tackling the 5,000 plus qualifications at level 3 and below with low or no enrolments, which would create a system that would be easier to navigate, and give learners and employers confidence that qualifications were rigorous and high-quality.

However, the Committee warned that, the speed and scope of the Department's reforms risked inadvertently narrowing opportunities for young people to progress and succeed, and the Committee had been disappointed that the Department's equalities impact assessment had found that students with special educational needs and disabilities, Asian ethnic groups, students from disadvantaged backgrounds, and males were disproportionately likely to be affected by the Department's qualification reforms. The report noted that the Department's "expectation" that its reforms would be "generally positive" for the groups was an insubstantial premise on which to defund a significant number of tried and tested Applied General Qualifications.

The report pointed out that the Department's equalities impact assessment had found that some students with protected characteristics may be disadvantaged by the reforms as they may no longer be able to progress to a level 3 qualification, which could result in a rise in 16–18-year-olds who were not in education, employment, or training, although the Department expected the number to be "relatively small."

The Committee had been told that demand for T-level placements could reach up to 250,000 placements, but the Department's research had concerningly identified that fewer employers were interested in providing T-Level placements in 2021 than in 2019 (30% vs. 36%), and almost two-thirds (63%) of employers were currently not interested in offering T-Level placements, which put students at risk of having neither a T-Level option, nor an Applied General option.

The Committee called on the Department to place a moratorium on defunding Applied General Qualifications, and it added that tried and tested Applied General Qualifications should only be withdrawn as and when there was a robust evidence base proving that T-Levels were demonstrably more effective in preparing students for progression, meeting industry needs and promoting social mobility.

Post-16 apprenticeships

The report pointed out that the 19% increase in apprenticeship starts among under-19s between 2020/21 and 2021/22 had been a positive step forward, however, all too often older, more highly qualified workers were being prioritised for apprenticeships at the expense of young people.

The Committee argued that for apprenticeships to play their full part, they would need to reach both groups, and it urged the Department to set out how it would address the long-term decline in apprenticeship starts among young people, and ensure that apprenticeships were the gold-standard "earn and learn" option for school and college leavers.

The Committee called on the Department must to commission an independent review to examine possible mechanisms to achieve that goal, by considering ways in which levy reform could effectively encourage an increase in apprenticeship starts among younger and lower-skilled learners. The Committee said that, subject to positive evaluation, the Department must expand the flexi-job apprenticeship scheme with an ambition to support 5,000 apprentices on the scheme by 2025. It said that the Department must maintain a particular focus on supporting small and medium sized enterprises to share apprentices, which would help to ease pressure on SMEs by removing the requirement for a full 12-month training commitment.

The Committee also recommended that the Department should continue to work closely with trade unions, employers and other stakeholders to ensure fair pay

and just terms and conditions for apprenticeships.

A baccalaureate model at post-16?

The report said that the IB Careers Programme (IBCP) was a broad and flexible post-16 qualification, to enable students to acquire a valuable blend of academic, vocational and employability skills. The Committee explained that the IBCP prepared students effectively for a range of progression opportunities, and a destinations survey for the 2019 IBCP cohort had showed that 56% of students had progressed to higher education, 19% to employment and 11% to an apprenticeship.

The Committee urged the Department to revisit its decision to withdraw funding for the IB Careers Programme, and it should continue to fund the rigorous and accessible qualification, or provide evidence that any replacement would generate improved outcomes.

The report pointed out that while many other countries insisted on students covering a broad and balanced curriculum up to age 18, England was an international outlier in the narrowness of its upper secondary education. It added that the average number of A-levels taken by a student was just 2.67, and T-Levels, the new technical qualification, offered an even more narrow and specialised route.

The Committee argued that a baccalaureate model would offer a broad and ambitious curriculum, enabling students to develop skills and knowledge across a wide range of disciplines, and it also placed emphasis on holistic, extracurricular learning. The Committee called on the Department to establish an independent expert panel, reflecting a wide range of educational perspectives, to conduct a full and considered review into the possibility of adopting a baccalaureate model in England. To prevent a further narrowing of 16–19 education, the Committee urged the Government to undertake a wholesale review of 16–19 funding, including offering more targeted support for disadvantaged students.

The Committee said that the Government's proposal

to introduce compulsory maths up to 18 had been a welcome and ambitious pledge, as England was an international outlier in not requiring the study of maths up to 18. The Committee argued that young people should be leaving compulsory education equipped with a portfolio of key mathematical skills such as numeracy, data analysis, financial literacy, and statistical reasoning. But the Committee acknowledged that an A-level maths qualification would not be appropriate for all students.

The Committee pointed out that level 3 core maths qualification provided applied, real-world maths skills, including financial skills, and it argued that more students should have the opportunity to study the qualification. The Committee suggested that the Government should consider a qualification or accreditation in numeracy for those who had missed out on level 4 grades as an alternative to repeated retakes of GCSE Mathematics.

As part of the introduction of compulsory maths up to 18, the Committee said that the Department must convene an independent expert advisory panel to undertake an evidence-based assessment of any changes required to ensure curricula for post-16 maths to deliver the practical and applied mathematical skills needed by students, employers and the economy. The Committee also called for a realistic assessment of the proportion of students who may struggle to achieve a grade 4 in GCSE mathematics, and a route must be found for them to continue appropriate studies.

The Committee said that a number of challenges would need to be addressed prior to the delivery of the important reform, including tackling recruitment and retention of specialist maths teachers, and building a stronger foundation of numeracy and mathematical skills and knowledge at GCSE and below.

The Committee argued that addressing the issues would be a pre-requisite to ensuring the success of compulsory maths up to 18, and the Department must work with the sector to set out how it planned to do so. The Committee also argued that consideration should be given to

how focused qualifications in practical numeracy and financial skills could be used to broaden the reach of the initiative and ensure that a wide variety of students could benefit from further study of mathematical skills in context.

Education Journal Review

Volume 28 • Number 1

THE EDUCATION PUBLISHING COMPANY LIMITED