



## Summary paper

# Digital learning for sustainability and skills

JULY 2021

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## Introduction

In an exceptional and highly challenging fifteen months for the education sector, schools have been required to rapidly accelerate their digital learning offer. The pandemic forced the school system to move the majority of learning online during periods of school closure, amidst growing concerns about learning loss.

In May and June 2021, EPI and Apple co-hosted a series of events focused on digital learning during and beyond the pandemic.

Our May event “Towards recovery: Embedding digital learning in education catch-up strategy” brought together policymakers, school leaders and education unions to discuss how best to utilise digital learning as part of the education recovery process. Sir Kevan Collins, the then Education Recovery Commissioner, opened the discussion by outlining priorities of the government’s recovery programme and how digital learning fits into this strategy. The discussion then covered how digital learning could be used to support the monitoring of pupil progress and how to identify pupils that should be targeted in education catch-up. Panellists also considered the role of technology in improving wellbeing and catch-up offers and discussed how blended learning could support longer-term education recovery interventions in schools.

This event was chaired by David Laws, Executive Chairman of EPI, and the panellists were:

- **Sir Kevan Collins**, Education Recovery Commissioner
- **Geoff Barton**, General Secretary, ASCL
- **Jo Morgan**, Chief Executive, Shaw Education Trust
- **John Murphy**, Chief Executive, Oasis Community Learning
- **Sajid Gulzar**, Chief Executive, Prince Albert Community Trust
- **Professor Becky Francis**, Chief Executive, EEF
- **Leora Cruddas**, Chief Executive, CST
- **Dawn Haywood**, Deputy Chief Executive and Education Director, Windsor Academy Trust
- **Richard Sheriff**, Chief Executive, Red Kite Learning Trust
- **Emma McCrea**, Head of Curriculum, Oak National Academy

Our June event “Embedding digital learning beyond COVID” brought together school leaders and policymakers to examine how edtech (education technology) and digital learning could be used most effectively to support schools in the long-term as part of school improvement. The discussion focused on how technology could improve education provision if pedagogy is at its heart. Panellists considered the steps that need to be taken to enhance digital infrastructure across schools to embed digital learning in wider improvement, alongside an examination of how schools can support digital equity and digital inclusion to ensure that no child is left behind. The discussion also considered how digital learning and teaching could be used to drive improvements to teaching and learning through improving curriculum delivery and building teacher capacity through the removal of administrative burdens.

This event was chaired by David Laws, Executive Chairman of EPI and the panellists were:

- **Professor Eithne Hughes**, Director, ASCL Cymru

- **Karen Bramwell**, CEO, Forward As One Academy Trust
- **Dr Nikos Savvas**, CEO, Suffolk Academies Trust
- **Julia Patrick**, CEO, Apollo Partnership Trust
- **Catherine Scutt**, Director of Education and Research, Chartered College of Teaching
- **Hardip Begol**, CEO, Woodard Academies Trust
- **Bill Watkin**, CEO, Sixth Form Colleges Association

## Summary of recommendations

### Access and inclusion

Recommendation 1: Digital access should be a priority for the government and efforts to ensure that all children and young people have access to a digital device should be continued and expanded.

Recommendation 2: Parents should receive guidance and resources to help them to support pupils' digital learning.

Recommendation 3: Schools should continue to provide a blended learning offer to pupils post-pandemic, particularly for those with SEND and EAL needs.

### Effective implementation in the classroom

Recommendation 1: The Department for Education should provide comprehensive digital support and training to schools.

Recommendation 2: There must be comprehensive strategies in place for ensuring that all technology used in the classroom is up-to-date, safe and effective.

### Learning loss assessments

Recommendation 1: When monitoring pupil learning loss, schools should pay particular attention to those pupils from disadvantaged backgrounds, and those in the important school transition years.

Recommendation 2: Schools should be supported to access platforms capable of real-time assessment of learning progress.

Recommendation 3: Schools should consider how they deploy assessment tools for learning progress in the long-term, beyond the pandemic.

### Pupil and staff wellbeing

Recommendation 1: Schools should consider the use of light-touch, wellbeing monitoring schools, which are integrated into the digital learning experience.

Recommendation 2: Schools should consider how such wellbeing assessments can be deployed effectively in a blended-learning environment.

## Education recovery

Recommendation 1: Digital learning should become a core part not only of any education recovery plan, but of any education offer going forward.

Recommendation 2: Schools should consider how technology can be used to reduce workload for teachers and support the delivery of the curriculum both in the classroom and outside the classroom.

Recommendation 3: Digital inclusion should be at the heart of education recovery in order to ensure that no child or young person is left behind.

## Curriculum resources and teacher CPD

Recommendation 1: There should be increased efforts to share resources between schools and between disciplines.

Recommendation 2: Teachers should be effectively supported and trained to enable them to deliver education digitally and enhance the digital skills of pupils.

Recommendation 3: A proportion of CPD opportunities should continue to be delivered digitally post-pandemic to ensure that all teachers have access to high quality CPD which is not costly or time-consuming.

## Access and inclusion

The closure of schools, colleges and nurseries in March 2020 forced teachers and pupils to adapt to a new way of learning. Young people were suddenly reliant on access to devices and a strong and stable internet connection at home in order to learn. However, there are clear variations between the quality of home working environments for different pupils. [According to EPI research](#), disadvantaged students are more likely to have limited access to devices and internet connections and may not have a suitable space or area to work quietly from home.

While the government committed to providing 1.3 million laptops to the most disadvantaged children and young people as part of the [Get Help with Technology Programme](#), the scale and rollout of the programme has faced much criticism. Changing eligibility criteria and logistical issues meant that many pupils were without access to an adequate device for a large portion of the academic year.

Where schools in some areas of the country are still closed to pupils due to rising infection rates, or where children are asked to learn from home due to COVID breaches, it is clear that a blended approach to learning will continue for some time yet.

[EPI research](#) has found that disadvantaged groups and those with prior low attainment are most likely to miss school, signifying that these groups are most reliant on remote provision. Due to this, it is vital that the government continue the rollout of the laptop scheme, along with continuing to work with the UK's leading mobile network operators to provide free data and support for disadvantaged families. Even if schools provide an excellent online learning programme, pupils risk falling even further behind in their studies if they do not have access to devices to get online.

Separately from device access, there has been a lack of clear guidance for schools on how to best operate remotely and limited access to digital resources. This is with the exception of centrally funded resources such as Oak National Academy which has seen more than [100 million lessons](#) undertaken by pupils as of February 2021. However, physical lessons such as drama, art and PE are harder to teach remotely. It is important that pupils have access to as varied of a curriculum as possible, which may mean providing access for parents and carers to central resources which allow them to help their children with learning these subjects while at home.

The pandemic has highlighted that learning does not only happen in schools and has shown the importance of engaging with parents and caregivers to ensure a pupil has the best access to education possible. It is vital that if a blended approach to learning continues, parents have access to resources and guidance to assist their children effectively. Providers of these resources should consider accessibility needs of parents and include translations into different languages.

At an EPI event in July 2020, “Enabling a blended learning approach for all pupils and teachers”, several multi-academy trust (MAT) leaders cited a lack of guidance for pupils with special educational needs and disabilities (SEND). While those with an education, health and care (EHC) plan were able to remain in school, some parents chose to keep their children at home. This variation in learning has impacted pupils differently. Indeed, some school leaders at this event suggested that digital learning has had a positive impact for some pupils with SEND, such as those with autism who may be more comfortable in a home learning environment. Moreover, children with hearing-impairment may have also benefited from a home learning environment, as they had improved access to services such as speech-to-text technology, voice recognition and predictive text. It was also noted that edtech has the ability to remove barriers to learning for certain pupils, such as providing translation software for pupils who have English as an Additional Language (EAL).

Digital learning has had a positive effect on some pupils and EPI encourages schools to offer pupils with SEND and EAL an approach to blended learning, even when schools reopen full-time. Digital provision can also help support learners beyond COVID in other situations where schools are not able to be physically open (e.g. due to weather disruptions) or where pupils aren’t able to come to school for physical or mental reasons.

**Recommendation 1: Digital access should be a priority for the government and efforts to ensure that all children and young people have access to a digital device should be continued and expanded.**

**Recommendation 2: Parents should receive guidance and resources to support them to partake in pupils’ digital learning.**

**Recommendation 3: Schools should continue to provide a blended learning offer to pupils post-pandemic, particularly pupils with SEND and EAL needs.**

## Effective implementation in the classroom

While edtech can have a positive effect on the learning of some pupils, schools face a lack of guidance around which programmes and software are most effective. Moreover, it is vital that the devices that schools do have access to have compatible software installed (e.g. school computers

should have compatible word processor software). It is also important that devices used by both teachers and pupils are kept up-to-date and have the latest security software installed.

As mentioned by several MAT leaders at the EPI event in June 2021 “Embedding digital learning beyond COVID”, children of this generation are said to be ‘digital natives’ and there is often an assumption that these pupils will naturally know how to use edtech and digital devices. Pupils need access and guidance on how to use these devices (such as how to effectively use search engines or how to critically choose sources) and most importantly, need to be taught how to use them safely especially when having access to the internet. Not only is this important in ensuring that the technology is used in the right way, but it also gives pupils confidence in their ability to use these devices when they take them home.

Using devices or technology to learn requires a different set of skills to traditional learning. For example, [evidence shows](#) that pupils find it easier to retain information when taking notes by hand, rather than using a keyboard. However, students can be taught strategies to overcome this, for example through teachers encouraging them to engage with the material differently, rather than simply copying down exactly what is presented to them.

Teachers must be provided with training and advice on how to implement digital learning strategies. Teachers have been trained to deliver one-to-one support for children in person in classrooms but have not necessarily had training on how to embed technology into the curriculum. When the pandemic first began in March 2020, teachers and schools were faced with the task of improving their digital strategies by necessity overnight; a situation which many were not prepared or trained for.

The [EdTech Demonstrator programme](#), developed by the Department for Education, provides tailored support to teachers and schools to allow them to offer high-quality remote provision to all pupils. The continuation of this programme for the 2021/22 academic year and beyond will be essential to both ensure that teachers are well-trained to continue a hybrid learning approach and to encourage those pupils who have fallen behind to recover some of their lost learning. Teachers need to have the necessary training and understanding of technology in order to use the software most effectively and to teach their students how to use it. The Department should provide comprehensive digital support and training to schools, especially those who do not have existing digital infrastructure in place.

Digital learning can play an important role in learning when schools reopen again. As different students have different needs, technology can allow teachers to adapt their learning methods to suit the range of abilities and backgrounds in the classroom. At an EPI event in June 2021, one MAT leader described their classroom where a student with EAL was able to sit in one part of the classroom with headphones on, learning phonics, while other children were tackling more complex problems using online books. Technology, if used safely and effectively, offers the possibility of improving the experience of all pupils, but particularly those who require individualised approaches or have certain educational needs.

Technology will have a role to play in teaching for years to come. Once schools have a solid digital infrastructure in place, it will become easier to support these schools as technology and methods of learning change. Edtech is constantly evolving, and it is important that schools have access to the relevant data and research to make informed decisions about what technology and devices they invest in.

**Recommendation 1: The Department for Education should provide comprehensive digital support and training should be provided to schools.**

**Recommendation 2: There need to be comprehensive strategies in place for ensuring that all technology used in the classroom is up-to-date, safe and effective.**

## Learning loss assessments

There is now a strong body of evidence showing that at a national level, school pupils in England have lost up to several months of learning as a result of the pandemic. EPI and Renaissance Learning have been commissioned by the Department for Education to carry out a long-term research project examining the extent of learning loss among pupils. In June 2021, the latest EPI [research](#) was published by the DfE, examining the extent of learning loss among primary and secondary school pupils in England during the spring (2021) and autumn (2020) terms, at both a national and regional level.

Average learning losses for primary school pupils were found to be nearly 2 months in reading and over 3 months in maths in the first half of the autumn term, before briefly recovering in the second half of the autumn term, and then returning to previous levels (of around 2 and 3 months) in the spring term. Average learning losses for pupils from disadvantaged backgrounds (those eligible for free school meals) were found to be greater - a development which risks widening the overall gap in educational attainment. The research also found that at a regional level, certain parts of the country saw greater losses than others. Regions such as Yorkshire and the Humber, the North East and the East Midlands saw higher levels of learning loss among their pupils than pupils in London and the South West.

These findings are consistent with a number of other reports which have also sought to compare children's skills in autumn 2020 with what would normally be expected. This emerging evidence is quite consistent, showing that children in primary school were about 1-3 months behind in their literacy and numeracy skills and were likely to be further behind in maths, and pupils from disadvantaged backgrounds were furthest behind.

Identifying individual pupil learning losses and assessing the level of remedial support required has been a central focus of schools since the education system first experienced disruption from the pandemic. In tandem with the adoption of digital learning practices, schools have also begun assessing learning losses and monitoring pupil progress through the use of digital assessment tools.

At the May 2021 EPI event, "Towards recovery: Embedding digital learning in education catch-up strategy", there was a strong consensus among speakers and panellists that use of digital technology has enabled schools to derive detailed insights into pupils' academic progress. It was noted that schools have moved "impressively quickly" to deliver this in challenging circumstances, often proving highly innovative in taking up new opportunities. When carrying out internal pupil assessments, many schools have shifted their assessments to online formats, whether in the form of more informal quizzes using online platforms or project-based assessments in which pupils can submit their response to their teachers.

There was also consensus from speakers that by supporting efforts to carry out a diagnostic assessment of the level and type of support needed by pupils, digital technology was able to deliver greater efficiencies for schools. One of the most commonly cited benefits was the way in which such

tools were able to provide extra capacity by relieving teachers of some of the administrative burden that can come with undertaking regular internal pupil assessments, by “doing the heavy-lifting” for teachers, when it comes to assessing needs.

All speakers underlined the importance of a targeted approach to monitoring and addressing pupil learning loss, with digital assessment tools having great potential to support these efforts. School leaders emphasised the huge disparities in terms of where children were in their learning progress across schools, year groups, classes and subjects. In some instances, learning losses were found to be “catastrophic” for young people, while in others, pupils had lost little to no learning since the arrival of the pandemic. While all pupils are included in efforts to address learning gaps, one MAT leader noted that it was particularly important to regularly monitor and target pupils in the crucial transition years of years 6, 11, and 13.

Being able to monitor pupils through the availability of live, real time data on learning progress was regarded as central to identifying lost learning and in particular, being able to target additional support at those pupils who need it most. One MAT leader highlighted the importance of focusing on the basics of reading and mathematics, and using standardised digital applications across schools, which were able to report data on learning progress in real time, in a clear and accessible way. There are now a variety of digital learning platforms that are able to deliver real-time assessment data, assessing pupils in a light-touch, low stakes way, and highlighting any learning gaps. However, despite the widespread adoption of digital learning among schools in England, such assessment technology is not employed universally. Schools should be supported to access platforms capable of real-time assessment or receiving modular project-based assessments, otherwise pupil engagement is more difficult to track and learning gaps are less easy to identify and manage.

Finally, a key theme which speakers also coalesced around was the idea that, while digital assessment tools have played an important role in support schools’ education recovery efforts, they should not merely be regarded as tools to help with addressing pupil learning loss. While the focus and prevailing narrative has been around the idea of helping pupils to “catch up”, there was agreement that there is also a need for policymakers and school leaders to focus on the opportunities that such technologies can now bring to support pupils’ learning after the pandemic, once they are firmly embedded in schools’ everyday practices.

**Recommendation 1: When monitoring pupil learning loss, schools should pay particular attention to those pupils from disadvantaged backgrounds, and those in the important school transition years.**

**Recommendation 2: Schools should be supported to access platforms capable of real-time assessment of learning progress.**

**Recommendation 3: Schools should consider how they deploy assessment tools for learning progress in the long-term, beyond the pandemic.**

## Pupil and staff wellbeing

Although the long-term impact of the pandemic on children and young people’s mental health and wellbeing remains uncertain, there are strong indications that it was already deteriorating prior to



the pandemic, and has subsequently worsened, particularly amongst those who were already vulnerable. The NHS's Mental Health of Children and Young People Survey found that probable mental health conditions for children and young people in England increased from around 1 in 9 (10.8 per cent) of children aged five to sixteen in 2017 to around 1 in 6 (16 per cent) in July 2020, across all age, sex, and ethnic groups.

As well as the more immediate and direct harms caused by a deterioration of wellbeing itself, there is also increasing evidence showing that pupil wellbeing is linked closely to educational attainment. Mental health difficulties have been linked to poor attainment and persistent absenteeism, while poor emotional, behavioural and social wellbeing, poor mental health, and depressive symptoms have been shown to predict poorer later attainment, independent of other factors. Research on children's learning and development shows that learning environments which support the whole child – their social, emotional, cognitive and physical needs – can provide the foundations for progress in education.

Since March 2020, many pupils will have now had multiple prolonged periods where they will have had to move from in-class learning to remote learning, with a large proportion of parents also working remotely for extended periods of time. For some, this transition will have proved manageable, but for many the switch to home working and learning will have proved highly challenging and stressful. It is important for schools to continue to acknowledge that at times, families may still struggle with remote learning and seek to support parents as best they can – including through regular communication which can include helping them manage their own expectations of their child's learning.

Tracking pupils' wellbeing during the periods of school closures has been difficult, made more so where pupils lack regular access to their peers and teachers. It is important that pupils and teachers feel able to share their experiences and challenges with peers and that they are aware of the channels available if they require assistance or support. Speakers agreed that it was important that schools should make full use of available technology and seek to improve their wellbeing offer by taking advantage of monitoring tools. School leaders report that informal check-ins with pupils, whether at the start of the school day or to bookend lessons have helped in this regard, while centralised resources like the Oak National Academy have engaged a light-touch approach to understanding how pupils are feeling when using the platform. Some school leaders have reported improved, more frequent engagement with parents and carers, particularly from those seeking guidance on how best to assist their child. These engagements can be as frequent as two to three times per week and take place digitally, enabling parents and teachers to build stronger relationships and provide more tailored wellbeing support and guidance. At our May 2021 EPI event, one school leader noted that in their academy trust all school staff have been given training in adverse childhood experiences, while there is regular use of a wellbeing diagnostic tool for every child, which is able to track child wellbeing through regular feedback.

Speakers also agreed that we need to support and empower teachers who themselves are dealing with their own wellbeing issues due to the multiple pressures of working in the school system during the pandemic. Throughout the past year, they have been grappling with a demanding, highly skilled job and have shown great energy, dynamism and moral purpose in supporting pupils and each other. The delivery capacity of teachers has gone beyond learning and has reinforced their positions as "changemakers" for their communities and as civic leaders. However, one speaker noted a drain of energy in the profession after a year of restrictions. It is important that additional efforts are made by policymakers to keep the workforce well-motivated. EPI research has shown that, while teacher

retention improved over the pandemic, this may prove short-lived, with teachers indicating that they are more likely to quit the profession now, than before the onset of Covid-19.

**Recommendation 1: Schools should consider the use of light-touch, wellbeing monitoring schools, which are integrated into the digital learning experience.**

**Recommendation 2: Schools should consider how such wellbeing assessments can be deployed effectively in a blended-learning environment.**

## Education recovery

With pupils facing months of lost learning and with prospective total lost earnings for pupils likely to run into tens of billions, the education sector is looking collectively towards education recovery.

EPI have made recommendations regarding what is needed to overcome learning losses, including recommending a three-year package totalling £13.5bn. [Our research](#) indicates that this level of funding is vital to reverse the damage done to pupils' lost learning. In addition, we recommend a series of policies, including extending school hours for social and academic activities, additional Pupil Premium funding, summer wellbeing programmes, more incentives for teachers to work in "challenging" areas, further mental health support and the option for some pupils to retake a year. These measures are vital to reverse the damage done to pupils' learnings as a result of the pandemic.

Despite this, in June 2021, the government announced their long-awaited education package, which totalled £1.4bn. Our analysis shows that this amounts to just £50 extra per pupil per year (or £310 per pupil when all of the post-Covid education recovery is included), which is a fraction of the level required to reverse learning losses. This contrasts to the equivalent funding of £1,800 per pupil in the United States and £2,010 per pupil in the Netherlands.

It is evident that much more needs to be done to address pandemic learning loss. Digital learning can play a major role in aiding education recovery and helping to overcome the learning losses children and young people have experienced.

At the May 2021 EPI event, "Towards recovery: Embedding digital learning in education catch-up strategy", there was a strong consensus among speakers that technology can not only support schools to assess pupils' learning losses but also to overcome these gaps as a central component of education recovery. There was a strong belief that technology has an important role to play as we emerge stronger from the pandemic, not as an end in itself but rather as a "turbo booster" to enable learning to be accelerated. Technology provides an opportunity to redefine the way in which pupils can learn and should be more than just a substitute.

Speakers agreed that it was important to ground this learning through research focused on technology and the success of technology use in learning, in addition to research on pedagogical and cognitive theory. As we look towards education recovery, it will be critical to consider what makes great learning and how research on technology can align with this, in order to improve the quality of teaching and learning. One MAT leader emphasised in particular the opportunity to use digital technology to support retrieval practice.

Speakers also discussed the significant benefits that technology can bring to learning and how this can be used to aid education recovery and overcome learning losses. One school leader emphasised two questions that will be central to education recovery: “when do we address the learning gaps and who does this?” Technology can provide a sustainable solution to this issue. Teachers will evidently be best placed to identify gaps in pupils’ learning, but they are often operating at a high workload, so we need to consider carefully how they spend their time. One addition to a blended toolkit could be the introduction of pre-recorded lessons, delivered by a high-quality teacher paying attention to strong pedagogical features, that can be tailored to pupils’ specific gaps. There is no need for experts to be present, which can reduce teacher workload.

It would also be beneficial to think about how to best utilise technology in education recovery both inside and outside of the classroom. Technology use outside of school can enable schools to do more in the day if applied carefully. It also presents opportunities to support vulnerable children and particularly to bring parents into this process; it enables parents to partake in their children’s learning virtually in a way that they were not able to before. There is evidence to suggest that the disadvantage gap has widened during the pandemic and that the most vulnerable pupils in particular have been most affected by this, so it will be crucial to harness the opportunities technology presents to support vulnerable children. When considering education recovery, it is important to reconcile these two aspects of home and school life and consider how we can support children to recover both inside and outside the classroom.

Of course, the digital divide presents a significant issue in education recovery and will need more work to ensure that no child is left behind with their learning. There is a clear and definitive link between poverty and digital exclusion, and this is not just a pandemic problem. It will be crucial to ensure that digital inclusion is part of any effective education recovery.

It is evident that the education sector has made extraordinary strides in digital learning in the past sixteen months, and it will be crucial that this learning is taken forward beyond the pandemic, in order to aid education recovery not just in the immediate but in the longer term.

**Recommendation 1: Digital learning should become a core part not only of any education recovery plan but of any education offer going forward.**

**Recommendation 2: Schools should consider how technology can be used to reduce workload for teachers and support the delivery of the curriculum both in the classroom and outside the classroom.**

**Recommendation 3: Digital inclusion should be at the heart of education recovery in order to ensure that no child or young person is left behind.**

## Curriculum resources and teacher CPD

[EPI research](#) indicates that a well-implemented continuing professional development (CPD) policy of 35 hours a year of high quality CPD would lead to significant benefits for pupils, resulting in an extra two-thirds of a GCSE grade and improving their lifetime earnings by over £6,000. Despite this, teachers in England fall far short of the OECD average of 62 CPD hours a year, coming in at just 43 hours a year. For those CPD hours teachers do partake in, research suggests that only 11% of this

meets the government's quality criteria, suggesting that much of the CPD that teachers undertake is not of a high quality.

EPI research finds that a CPD entitlement could significantly improve retention, resulting in up to 12,000 extra teachers a year staying in the profession. This could be an effective tool in tackling the current teacher recruitment and retention crisis, with a shortage of around 3,000 teachers a year.

The importance of providing more and higher quality CPD opportunities for teachers is a central theme that arose in discussions at both the May and June events. Speakers admired the innovation and commitment of teachers in the last fifteen months to make the drastic shift to online learning and support pupils' education during these difficult times. There was a consensus that we needed to capture the potential of digital learning beyond the pandemic, and key to this is harnessing the CPD opportunities that technology can bring.

Speakers pointed out that the move to digital learning has improved access to CPD for teachers. It has enabled schools to bring in international and UK based experts from renowned institutions to deliver talks to staff virtually, whereas they would not have had the budget, time, or capabilities to do this in person before the pandemic. Webinars are 95% cheaper than bringing experts in to deliver face-to-face sessions, which will make these kind of CPD opportunities much more affordable for a wider variety of schools. One speaker even noted that they found that webinars provided more opportunity to interact than in-person conferences, through breakout rooms and the chat function, enabling speakers to respond one on one to questions – all whilst saving the limited hours of teaching staff in travelling.

Online CPD sessions have also improved access for teachers living and working in rural areas, who would previously have had to travel long distances to attend training in person. Furthermore, making this material available to watch and listen to at any time widens access even further, providing the option of sharing content and making content available to new teachers when they join a school. One speaker noted that the sharing of training material can also enhance transparency; for example, by making material used to train senior staff available to access for all staff, rather than having it happen behind closed doors for specific groups only.

One speaker emphasised that technology could enable teachers and schools to work across schools and even work across subjects to share best practice. It enables greater collaboration and facilitates connections and resource sharing between people and disciplines.

Another key theme was the importance of delivering training and CPD to teachers on technology and digital learning. Schools and teachers have moved incredibly fast to move learning online in a short space of time, but they will need support around this new technology use and on embedding it into learning. The success of digital learning post Covid-19 will depend on high quality CPD and a sufficient level of support for teachers to enable effective implementation of technology. In order to ensure that pupils develop the digital skills needed to flourish in an increasingly digital world, teachers themselves will need to have the digital capabilities to deliver this education.

At the virtual panel discussion "Digital learning lessons for leadership" in November 2020, speakers discussed how technology could support curriculum delivery. They suggested that technology could enable teachers and pupils to have access to more tailored resources, such as using a digital thesaurus when undertaking an English language task.

Speakers also stressed the importance of standardising the curriculum across the school or group as much as possible, to make content sharing easier between teachers, minimise variation between and within wider learner groups and make progress through the curriculum easier to monitor. They

suggested that lead practitioners could standardise the approach across groups of schools and provide central packs of curriculum resources that could be used across schools.

It is clear that digital learning provides significant opportunities to aid the development of teachers, as well as providing support for them to deliver learning through a variety of digital curriculum resources and tools. With teachers facing a high workload during and post pandemic, and amidst rising concerns of a trend of burnout in the teaching profession, technology can be a vital tool to support teachers to deliver high quality learning.

**Recommendation 1: There should be increased efforts to share resources between schools and between disciplines.**

**Recommendation 2: Teachers should be effectively supported and trained to enable them to deliver education digitally and in turn enhance the digital skills of pupils.**

**Recommendation 3: A proportion of CPD opportunities should continue to be delivered digitally post-pandemic to ensure that all teachers have access to high quality CPD which is not costly or time-consuming.**