Education in times of crisis: Effective approaches to distance learning

Sharing teachers' expertise and experiences

Report summary

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TEACHING

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Overview

Evidence-informed practice requires the combination of research evidence with teacher expertise whilst taking the local context into account (see **Figure 1**). During the ongoing COVID-19 outbreak and resulting partial school closures, the main source of evidence to plan distance learning for teachers and policy makers was past research that was collected during planned distance learning and mainly in higher education settings (Müller and Goldenberg, 2021; EEF, 2021). It is paramount that this past research evidence is combined with insights from teachers who have been implementing distance learning during partial school closures to gain a full picture of what works in emergency remote teaching.

This summary report therefore presents findings from a research project with nearly 400 teachers to complement existing research findings and capture teachers' views, experiences and innovations. Teachers completed an online survey and participated in online focus groups in spring 2021 to capture their experiences with distance learning and determine how far these experiences map onto existing research evidence on effective approaches to distance learning. Results are presented as general trends across phases but also take a closer look at phase-specific differences (i.e. primary vs. secondary school), practical subjects (i.e. the arts, PE) and students with special educational needs and disabilities (SEND), thereby providing important new insights that have largely been missing from existing research. A full analysis of the data underlying this summary report can be found here.
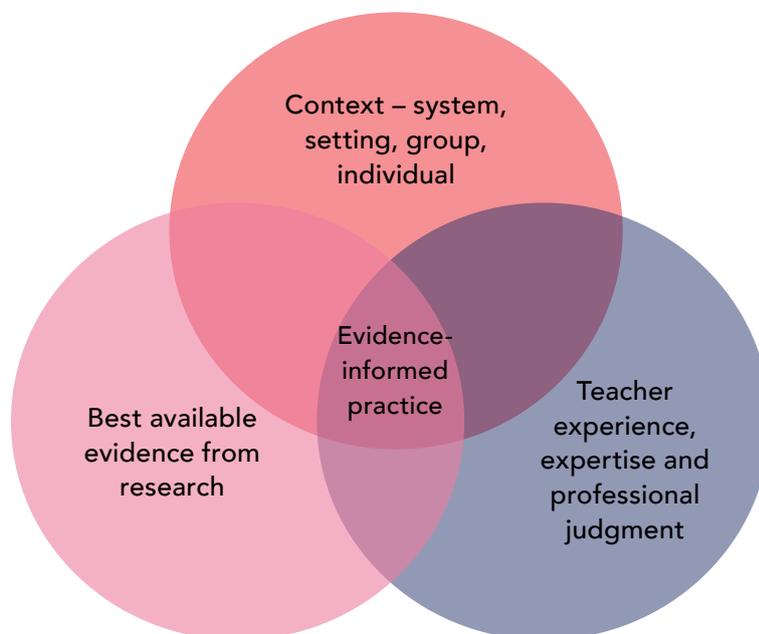
Figure 1: Evidence-informed practice (Scutt, 2018)

Approaches vary by phase with live teaching more common in secondary

Live online and asynchronous online teaching were the most popular approaches to distance learning overall. Eighty-nine per cent of respondents had used live online teaching and eighty-six per cent made use of asynchronous online teaching. However, the most effective and appropriate approach to distance learning may be phase-dependent with pre-made asynchronous and paper-based materials being more commonly used in primary settings, whilst live teaching was more popular in secondary school settings.

Concerns about excessive screen time, limited digital literacy and the need for more adult supervision were all stated as reasons why paper-based and asynchronous methods may be particularly effective and important with younger students. The balance between live and asynchronous, on- and offline methods, should thus be considered in policies around distance learning, making sure that live teaching is not automatically considered to be the most engaging or effective form of distance learning for all students.
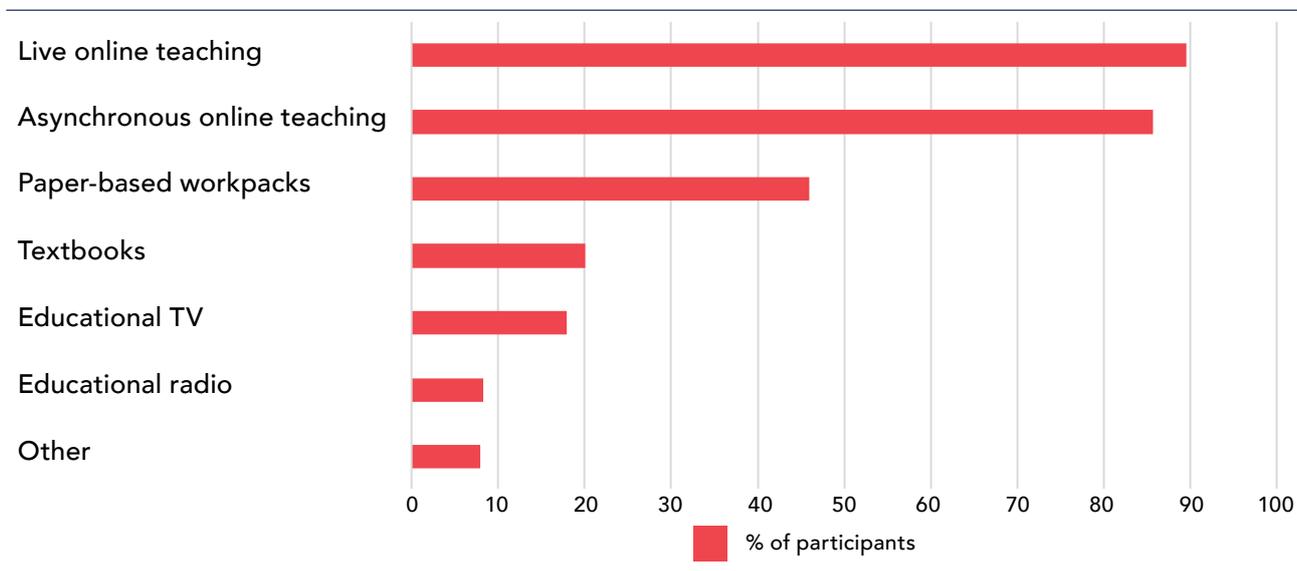
Figure 2: Approaches to distance learning
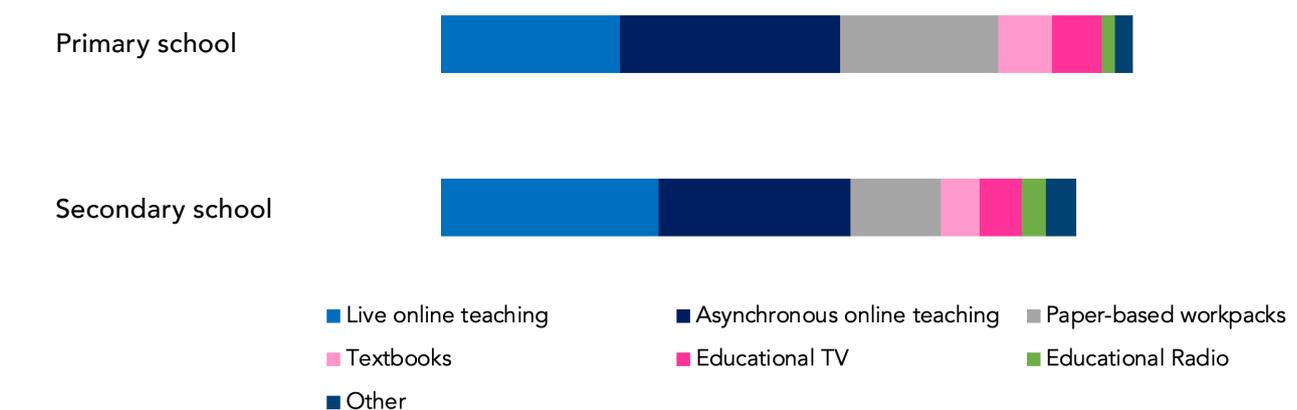
Figure 3: Split of approaches to distance learning

"We did not want three- and four-year-olds on computers three hours a day. It's just not appropriate for their cognitive development, their physical development. So, particularly our foundation stage and Key Stage 1 we had to think really carefully and make really tough decisions."

Primary and Early Years practitioner, UK

Pros and cons of video styles

**Table 1** summarises some of the comments made by teachers regarding the pros and cons of live versus recorded lessons. Teacher responses also suggest that the benefits of pre-made instructional videos and demonstrations such as those made by Oak National Academy, which reduce teacher workload and provide quality-assured content, need to be balanced with the benefits of home-made materials which can offer more specific and individualised support. **Table 2** summarises some of the pros and cons raised by teachers.

Live lessons		Pre-recorded lessons	
Pros	**Cons**	**Pros**	**Cons**
Able to vary pace and content 'in the moment' to match student needs. Able to question students, pick up misconceptions more quickly and tailor pedagogy accordingly. Maintains a sense of class community and opportunity for social interaction. Can be beneficial for motivation and engagement.	Relies on teachers and students having adequate internet connectivity, devices and quiet spaces. Lack of flexibility regarding when lessons are accessed (cannot fit in with parents' work schedules, sleep patterns, siblings' access to devices etc.). Relies on teacher confidence and willingness to present 'live', often in front of parents as well as students. Costly in terms of teacher time during the school day – requires all teachers to be online 'live', reducing capacity for other aspects of distance learning e.g. supporting parents, checking attendance and doing wellbeing check-ins. Too much screen time if there are too many live lessons in one day.	May reduce workload by allowing multiple teachers to use the same recordings. Flexibility regarding when lessons are accessed by students. Students are able to pause lessons and rewatch sections for clarity. Possibility for teachers to re-record lessons in order to make improvements or correct errors. Recorded lessons can be used at a later date e.g. for revision, supply cover or to support less experienced teachers.	May be less engaging for students due to a lack of social interaction and instant feedback. May be difficult to monitor who has accessed the lesson materials. Harder to pick up on students who are struggling or have misunderstood concepts. Cannot visually check in on students' wellbeing – e.g. picking up on body language.

Table 1: Advantages and disadvantages of live vs. recorded lessons

Teacher-made videos		Commercially-made videos	
Pros	**Cons**	**Pros**	**Cons**
Students enjoy seeing their teacher on screen – maintains a sense of class community. Able to vary structure, pace and content to suit student needs. Able to maintain consistency using the same vocabulary, strategies and approaches used during in-class teaching.	Relies on teachers digital literacy and access to necessary technology. Teachers may not have access to the required resources at home e.g. equipment for a science demonstration, maths resources, etc. Quality of videos can be poor due to technology, lighting, etc.	Reduces teacher workload. Consistency in approach across/within schools. Supportive for less experienced teachers. May be quality assured/ created by experts. Often made with professional sets, lighting, etc.	May become too repetitive leading to lack of student engagement. Unable to vary structure, pace and content to suit student needs.

Table 2: Pros and cons of teacher-made vs. commercially-made videos

Levels of 'learning loss' likely to be heterogenous but greater concerns in primary

Overall, about one third (38%) of respondents felt that their students had made about the same amount of progress during distance learning as they would have done during face-to-face teaching, and a small minority even felt that their students had made more progress. This is in line with past research findings which show that distance learning can be effective if students are engaged and can access their learning (Cavanaugh et al., 2004; EEF, 2020).

However, primary school teachers appeared more concerned about their students' progress than secondary school teachers. Only about one third (37%) of primary school teachers stated that their students had made at least around the same progress in distance learning as they would have in face-to-face teaching, as opposed to over half (51%) of

respondents from secondary schools. This suggests that younger students may have been less able to access distance learning than their older peers. This implies a heterogenous picture concerning student progress and provides important data to counter some of the prevalent negative discourse. While some students will have been able to access and benefit from distance learning, others will have been negatively affected by partial school closures. Recovery will thus require personalised approaches which consider students' personal circumstances during lockdown. Time for teachers to determine where students are in their learning, combined with high-quality teaching for all that takes into account each individual's starting point, may be a more appropriate way forward than rushing into 'catch-up' (Moss et al., 2020).
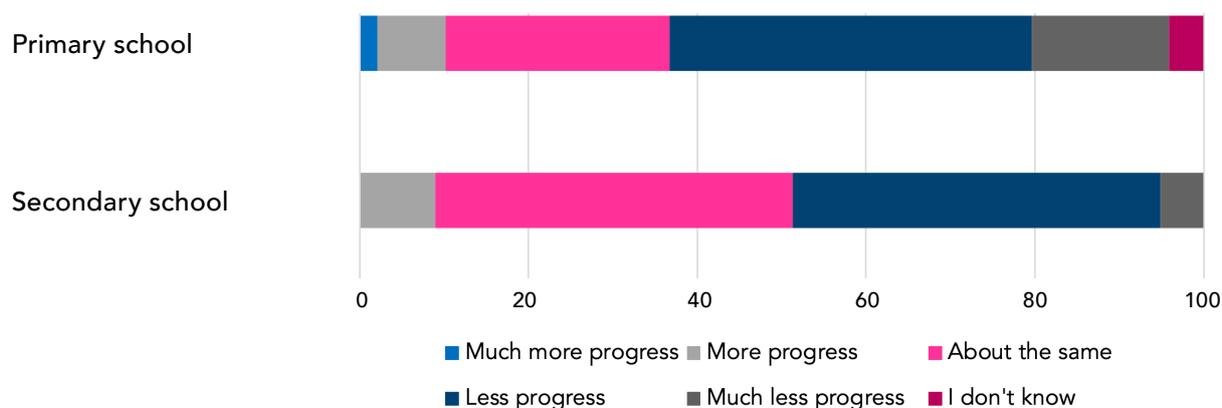

Figure 4: Student progress as reported by teachers, split by phase

"Our attainment data shows that our students have not experienced any 'lost learning' from an academic perspective. However, the loss of social aspects of learning and development have been huge."

Primary school teacher, UK

Devices are not enough – digital literacy development is crucial

Students', teachers' and parents' digital literacy skills are essential prerequisites for effective distance learning. Whilst access to digital devices has been discussed in length during this crisis (Müller and Goldenberg, 2020; Dhawan, 2020) and was the focus of many government policies, the need to upskill teachers, students and parents in the use of these devices has received comparatively little attention.

Roughly half of respondents in our study were challenged by a lack of technological skills in teachers (47%) and students (54%). A slightly bigger proportion of secondary school teachers compared with primary school teachers indicated a lack of technological skills in teachers (56% vs. 38%) and students (61% vs. 34%) as a major challenge of distance learning. Technological difficulties such as unstable internet connections were also considered slightly more pertinent in secondary than primary schools (77% vs. 62%).

These differences could be due to primary school teachers using more asynchronous and non-digital approaches to distance learning, which may have meant that technological challenges were less disruptive in this setting. This would also suggest that a mix of synchronous and asynchronous distance learning may be more robust than a purely online approach.

For digital distance learning to be effective, it is therefore paramount that all stakeholders receive adequate access to digital devices and the necessary digital literacy training. This should cover basic skills such as accessing and using video conferencing software, creating and saving documents, creating and uploading videos to online learning platforms, as well as accessing and responding to teacher feedback.

Focus group discussions showed that teachers often took it upon themselves during the ongoing COVID-19 crisis to train parents in these skills, adding an additional burden to their workload.

Training for teachers in digital pedagogies and the use of digital devices for teaching was not consistently available but is paramount for effective remote teaching and should thus form a central part of education policies in emergency contexts.

From a student's perspective, it is important to consider that despite often being regular users of technology, they may lack basic digital literacy skills that need to be pre-taught before they can effectively engage in distance learning. It should therefore be considered how systematic training in these skills could best be made available to all stakeholders in education to support effective distance learning.

> *"[O]ne thing we discovered in the very early days of online learning is that I think we made a lot of assumptions about the kind of skills that pupils had with technology. I mean, we talk a lot about digital natives, but actually when we think about a lot of what children do[...]it's very app-based and so when we were asking them to use things like Office and so on, they actually really struggled with that and it made us realise that actually the ICT curriculum has veered very much towards things like coding and so on, which is great, but then the kind of basics of using office software, or using a computer, saving a document things like that have kind of been lost so that's something we're kind of trying to go back to now next year, but that's something that became quite apparent to us anyway."*
>
> Primary school practitioner, UK

Over half of teachers' workload has increased but collaboration and pre-made resources can help

The move to distance learning was associated with an increase in workload for many teachers, which was partly due to teachers' needing to upskill themselves in little to no time, and partly due to parental and governmental expectations around live teaching and marking.

Over half (56%) of respondents to our survey reported that their workload had increased as a result of having to plan online lessons with no substantial differences between primary and secondary school teachers. This is despite the fact that the UK government had already made a suite of online learning materials available at the time.

> *"My staff's workload increased with remote learning because they were having to learn as well as do all the normal things of planning... and actually just learn almost how to teach again in a completely different way."*
>
> Primary school leader, UK

However, it should also be noted that some teachers reported on the positive workload implications of distance learning, which echoes results from our second report in this series. Thirty-eight per cent reported on the ease of sharing preparation and content with colleagues and 26 per cent respectively found that reduced admin and meetings and a better work/life balance was an advantage. Collaboration across the profession and a reduction in administrative tasks could hence counteract the increase in workload due to digital content creation.

It is important that advantages and disadvantages of live and asynchronous online teaching are weighed up and communicated clearly and that alternatives to written assessment are incorporated.

High-quality, pre-made asynchronous teaching materials also have an important role to play in alleviating teacher workload and should be made available more widely. It should also be considered how these materials can be rendered more appealing for secondary school teachers, who used them significantly less according to our data.

Creating opportunities for teachers to share resources within their school and beyond, training staff in digital pedagogies and ensuring that staff and students are equipped with the necessary devices and access to the internet, as well as keeping meetings and administrative tasks to a necessary minimum, are further likely to decrease stress and workload.

Teachers provided feedback at least as frequently during distance learning

Some research suggests that students may receive less feedback in an online learning environment compared with face-to-face teaching (Means et al., 2009). Yet two thirds of respondents in our study stated that they provided feedback at least about as frequently in distance learning as they would have done during face-to-face teaching. However, secondary school teachers were significantly more likely to indicate that they provided feedback more frequently during distance learning than respondents from primary schools (50% vs. 26.5%).

While teachers noted the lack of subtle feedback such as facial expressions and gestures, which was considered a major challenge, they made use of a range of more explicit feedback strategies. The most effective of these strategies according to teachers in this project were verbal feedback, low-stakes quizzes, feedback on classwork and questions/discussions. These were used by over 85 per cent of teachers, making them the most commonly used feedback and assessment strategies. Low-stakes quizzes were considered equally effective across phases but they were used significantly less in primary. Questions and discussions were used significantly less in primary teaching (76% vs. 95%) but not a single participant from primary settings considered it to be ineffective, as opposed to 21 per cent from secondary schools. Comments on portfolios of students' work were considered effective by 81 per cent of participants but were underused.
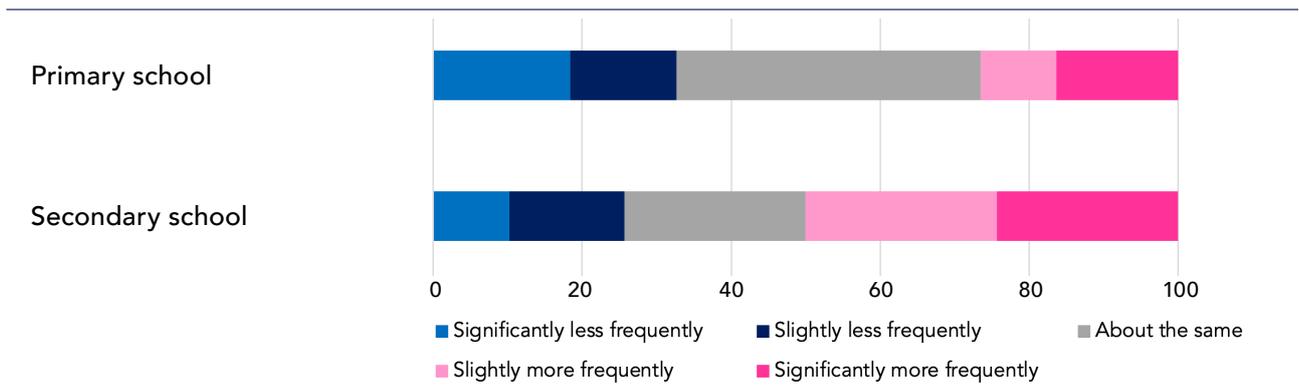

**Figure 5:** How frequently feedback was provided during distance learning, split by phase
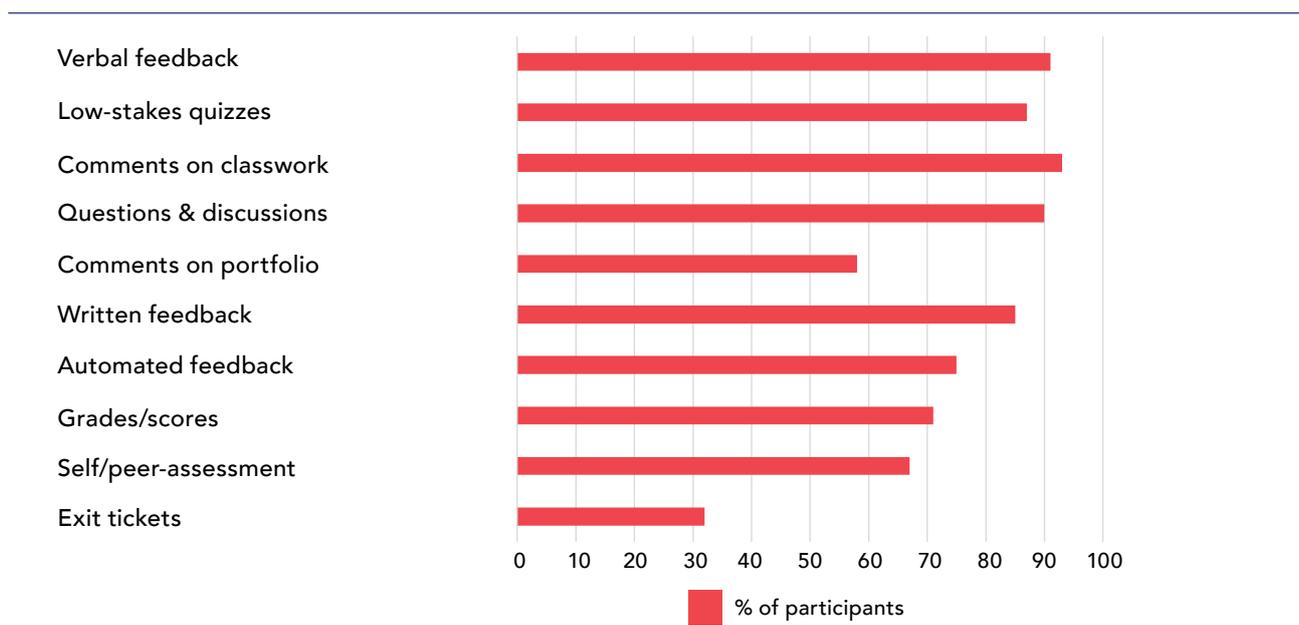
Figure 6: Use and perceived effectiveness of feedback and assessment strategies ordered from most to least effective

Verbal feedback is effective for students and key in decreasing workload

Verbal feedback was found to be most effective across phases in our study and had the additional advantage of decreasing teacher workload.

Ninety-one per cent of respondents used verbal feedback as part of their assessment strategy and 92 per cent of those who employed this strategy found it to be effective. Focus group respondents also highlighted verbal feedback as one of the most effective feedback strategies in the context of distance learning.

Many also found it more appropriate for younger students and others who might have difficulties processing lengthy written feedback, such as students with SEND or those with limited proficiency in the school language.

Some teachers noted that verbal feedback allowed them to go into more depth than written feedback and that it had the added value of students being able to hear their teachers' voices, thereby providing additional connection at a time when many felt disconnected from their teachers.

However, significantly more primary school practitioners indicated that they had *not* used this strategy during distance learning (16% vs. 3%). This suggests that additional training on the benefits of verbal feedback and how best to incorporate it may be needed in order to increase uptake.
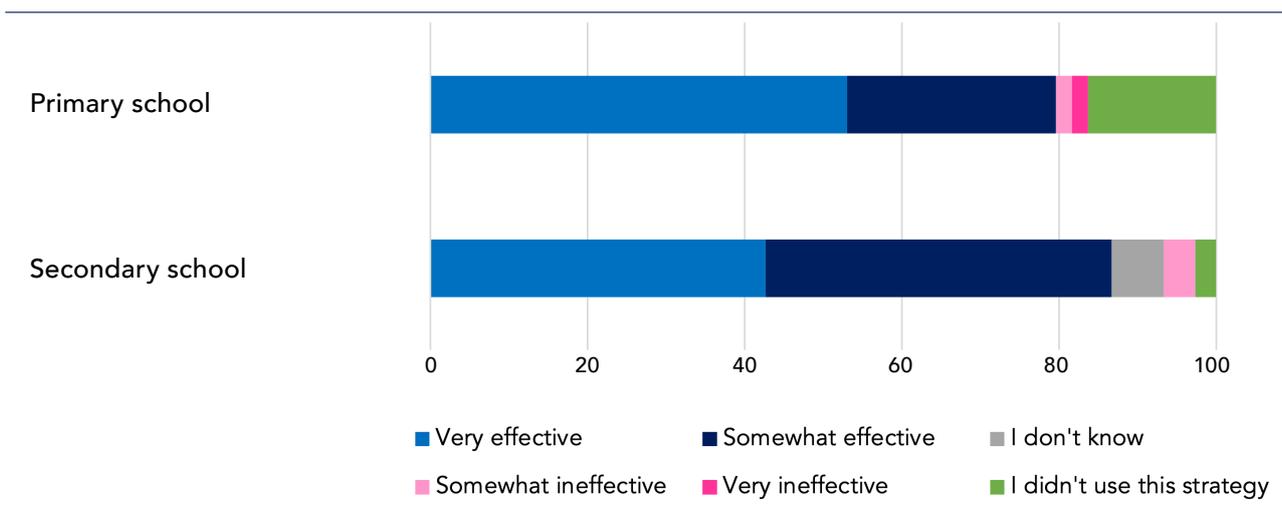
Figure 7: Use and perceived effectiveness of verbal feedback, split by phase

"[F]eedback in our environment became sort of a point of contention with the parents in the sense that if you're a primary teacher you were teaching trying to mark one piece of work in detail per child per day. But parents then raised that this wasn't enough, and staff were asked to mark a maths or writing and reading piece every day times 24 or 28 in one day, which became time consuming. It became beneficial for the students but it did take up a lot more time and it caused the moment of friction between the staff body and the parent body and we tried to find a way in between. It was setting the expectation that it didn't have to be written."

Primary school teacher, Vietnam

'Teaching presence' and guidance is particularly important for younger students

Past research on distance learning highlights the importance of 'teaching presence' for effective distance learning (McAleavy and Gorgen, 2020). Data from this study suggests that this may be even more important for younger students.

One example to support this hypothesis stems from findings around automated feedback. Automated feedback can be easily incorporated into distance learning and can be an effective way of providing students with feedback on their work and guiding teachers' planning. However, significantly fewer respondents from primary school used automated feedback (57% vs. 84%).

This indicates that younger students may rely more heavily on teachers interpreting and personalising

feedback for them. This hypothesis is further supported by the finding that questioning and discussions – key strategies to develop teaching presence in distance learning (McAleavy and Gorgen, 2020) – were considered more effective by respondents from primary settings, although they were used less in this context.

While self- and peer-assessment has been found to be an effective feedback strategy in distance learning, one third of respondents in this study considered it to be an ineffective method. One explanation for this finding could be that younger students require more teacher guidance during self- and peer-assessment, which may have been less available during distance learning.
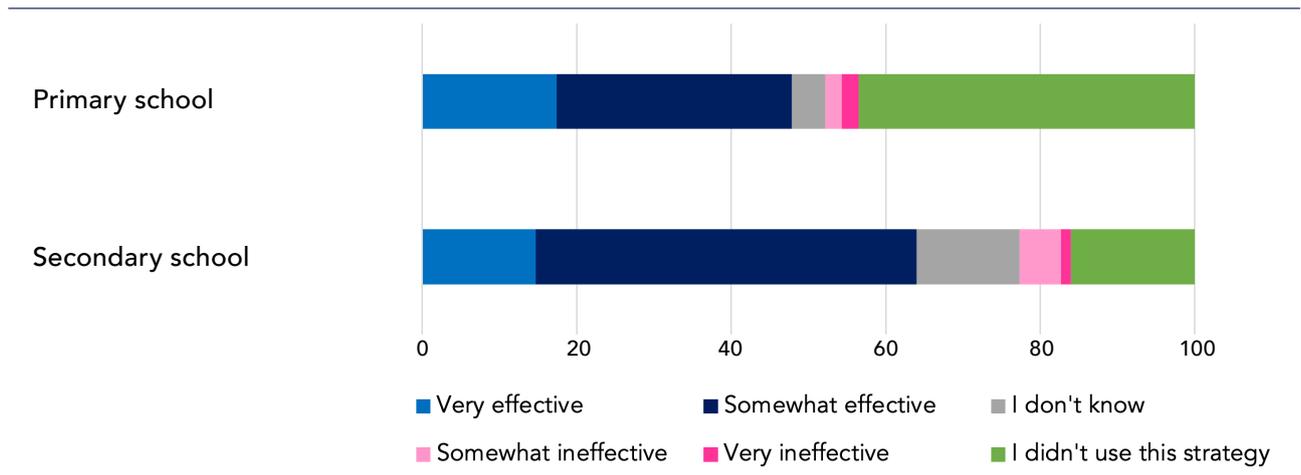

Figure 8: Use and perceived effectiveness of automated feedback, split by phase
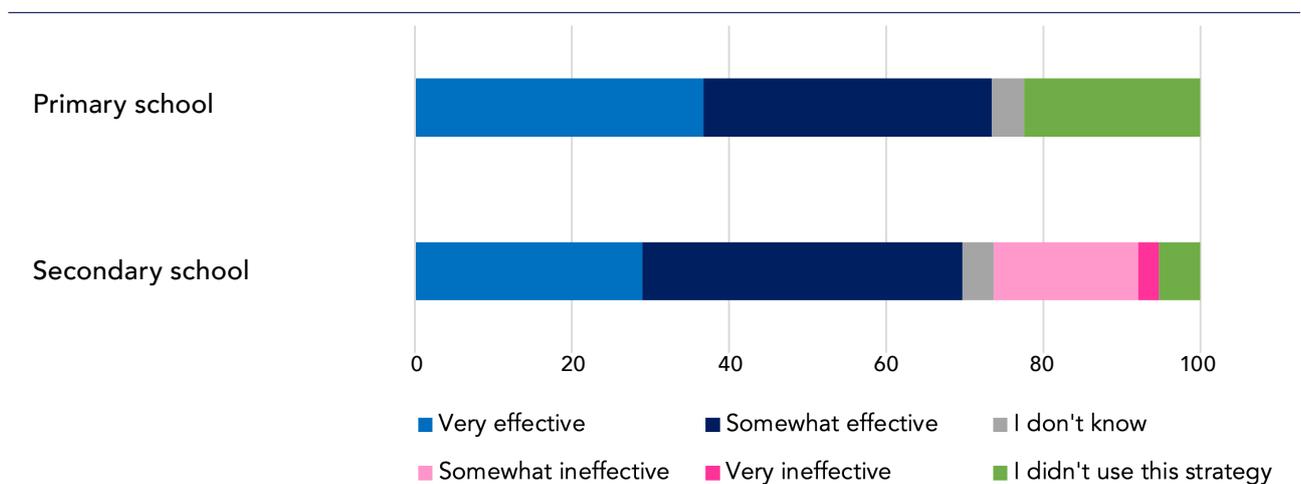

Figure 9: Use and perceived effectiveness of questions and discussions, split by phase

Collaborative learning is effective yet challenging to implement with younger learners

Over half of respondents (57%) used collaborative learning during distance learning but most (67%) used it less frequently than they would have done during face-to-face teaching, which confirms that collaborative learning is likely more challenging to implement with school-aged children than adults in distance learning (Rannastu-Avalos and Siiman, 2020; Yates et al., 2020).

Secondary school teachers used collaboration significantly more frequently than primary school teachers (64% vs. 46%). This suggests that group and pair work may be particularly difficult to implement with younger students. Issues around safeguarding and limited access to technology were raised as major barriers to collaborative learning. Further challenges included issues around ownership of online collaborative documents and the time-consuming process of setting up collaborative work in an online environment.

Pair work was considered most effective but differences in effectiveness ratings were only marginal. However, focus group discussions suggest that pair work may be easier to manage than group work.

While oral group work was considered slightly more effective than written work, the latter did seem to benefit students who either had difficulties engaging with oral discussions due to SEND or who felt more confident writing than speaking. Respondents from secondary schools also rated written collaboration such as working on shared documents or presentations as more effective than respondents from primary schools.
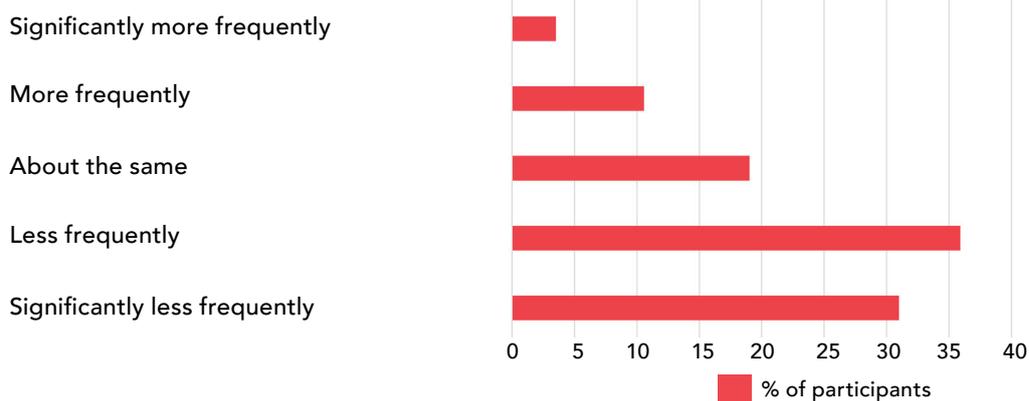

**Figure 10:** Use of collaborative learning during distance learning
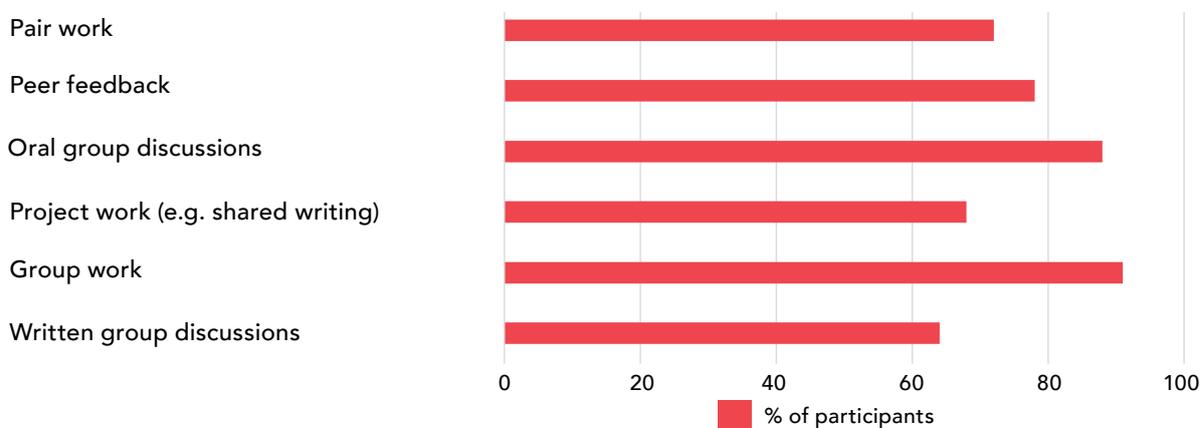
Figure 11: Use and perceived effectiveness of collaborative learning strategies ordered from most to least effective

"Thinking about how effective it would be, and what it would look like online stopped me from doing it for a while. However once I did [it], I saw how easy and effective it was."

FE lecturer, UK

Instructional videos – instructing students, instructing teachers

Instructional scaffolding was used extensively during distance learning. Nearly 90 per cent of respondents had used it and nearly half (49%) had used it more than they would have during face-to-face teaching.

Instructional videos were considered the most effective strategy. They were used by 94 per cent of respondents and of these 88 per cent considered them to be effective.

Respondents also noted that the recording and use of instructional videos had improved their practice of instructional scaffolding more

generally and many will continue to use recorded resources for students to access for additional support. Overall, teachers mainly provided procedural and conceptual scaffolding (Jumaat and Tasir, 2014) to support students in their understanding of key concepts and to help them understand the digital technology that was available to them.

Findings from this section lend further support to the finding that instructional scaffolding in online learning environments does not necessarily have to take place 'live' but that recorded video resources can provide equally if not more effective support (Muller and Goldenberg, 2021).
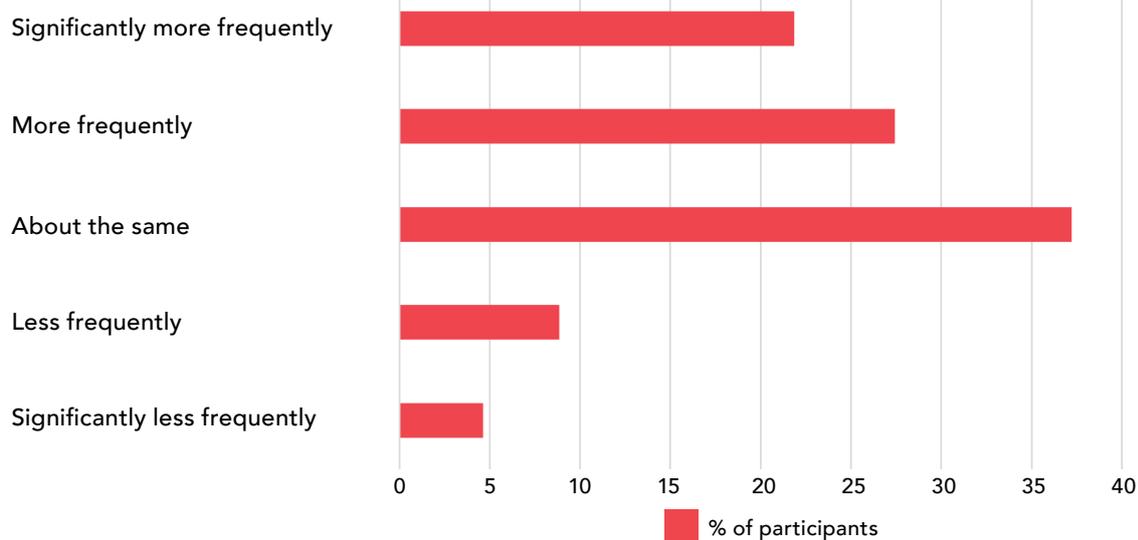

Figure 12: Use of instructional scaffolding during distance learning

"I think a lot of our teachers produce content through a whiteboard talking over a video, but also we use a lot of content that was out there and actually our provision would have been a lot worse without things like the Oak Academy and the White Rose Math videos."

Primary school leader, UK

Pre-made resources highly effective but more popular in primary settings

Teachers combined self-made and existing resources, with primary school teachers showing a strong preference for pre-made materials. Seventy per cent of respondents from primary compared with just 23 per cent of respondents from secondary schools had used them during distance learning.

Overall, resources from Oak National Academy were the most popular. However, in primary settings White Rose Maths and materials from Oak National Academy were used to a similar extent (80% vs. 83%). In contrast, of those respondents from secondary schools who did use pre-made resources, 95 per cent used materials from Oak National Academy, whilst only 15 per cent used White Rose Maths resources.

In terms of effectiveness, the vast majority of participants in primary and secondary settings rated pre-made resources as effective in supporting their students' learning (97% in primary vs. 95% in secondary). This suggests that particularly in secondary school settings, pre-made resources may have been under-used given their high effectiveness and the crucial role they have to play in reducing teacher workload. Priority should be given to promoting existing resources more widely so they can be incorporated into distance learning offers.

Of those respondents who did use pre-made resources, 57 per cent are planning on continuing to use them going forward.
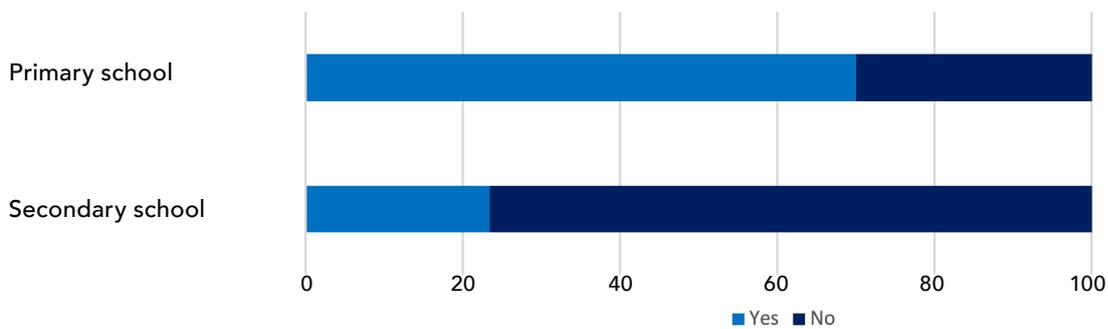

**Figure 13:** Use of pre-made resources by phase
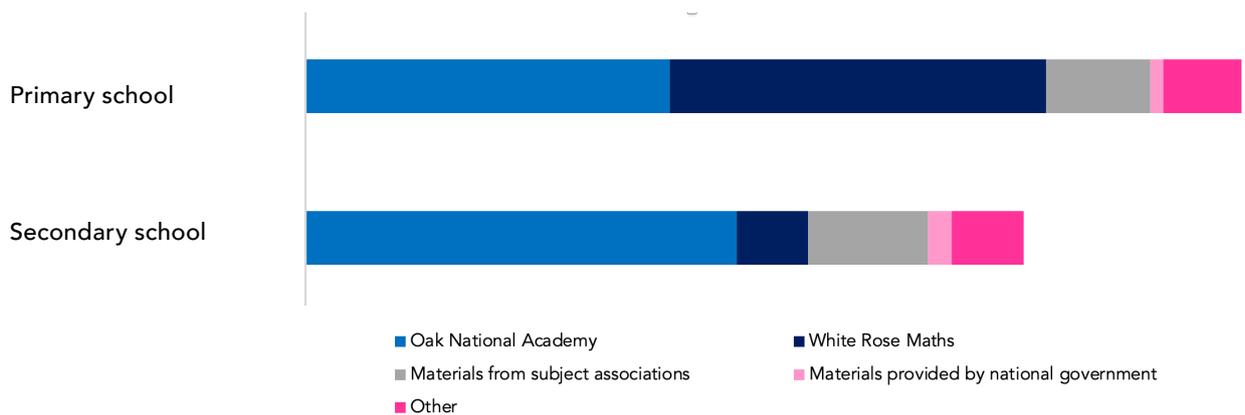
Figure 14: Split of different pre-made resources by phase

Metacognitive scaffolding is an effective yet underused strategy

Compared with instructional scaffolding, metacognitive scaffolding was used substantially less. Just over half of respondents (54%) reported using metacognitive scaffolding during distance learning and 37 per cent used it less frequently than during face-to-face teaching. This is in line with previous studies on distance learning in England (Lucas et al., 2020) and noteworthy considering the high effectiveness assigned to metacognitive strategies in distance learning (EEF, 2020; Doo et al., 2020; Kim and Lim, 2019).

Those teachers who did use metacognitive strategies in our study, considered 'supporting students in planning and managing tasks' and 'reviewing and evaluating their learning' to be the two most effective strategies, followed by prompts that helped students to reflect on their learning. Teachers commonly used weekly schedules and task lists to help guide students through their independent learning tasks. Self-assessed quizzes and written learning objectives together with exemplars were used to help students review and evaluate their learning independently. Virtual posters or questions on PowerPoint presentations were used to support students' reflection processes but some teachers also highlighted the lack of prompts that they would usually have available in their classrooms. Additional strategies discussed by teachers involved the explicit teaching of writing and editing processes and note-taking.

Given their relatively low use yet high effectiveness in distance learning, it seems advisable that materials for asynchronous distance learning as well as teacher CPD focus more explicitly on metacognitive strategies.
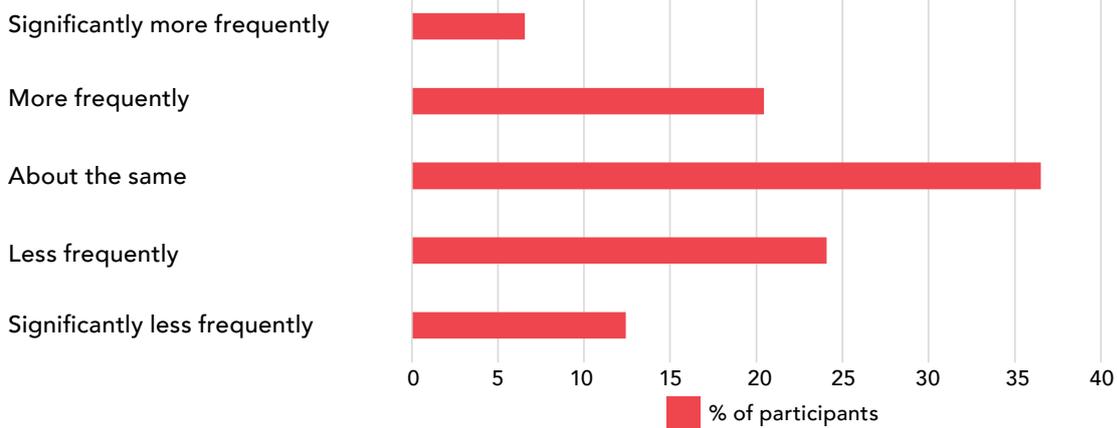

Figure 15: Use of metacognitive strategies by phase
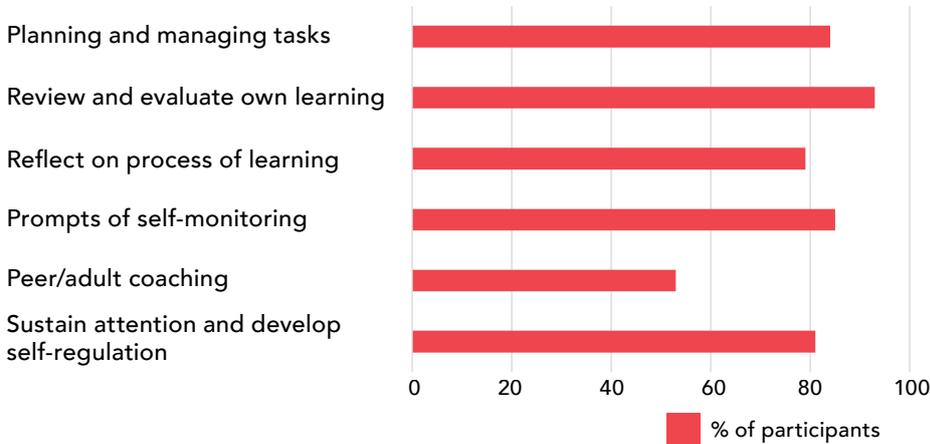
Figure 16: Use and perceived effectiveness of metacognitive strategies ordered from most to least effective

Over half of teachers say engagement is an issue and turned off cameras make it worse

Motivation and engagement are key for learning, yet over half of respondents (57%) felt that their students were less engaged during distance learning than during face-to-face teaching. They found that regular feedback, supporting a sense of competence and self-efficacy, as well as granting students flexibility and autonomy over their learning were key strategies in supporting students' engagement with distance learning. This is in line with past research findings that highlight the link between performance beliefs, motivation and performance (Bandura, 1993; Wigfield et al., 2014) and emphasise the importance of agency for motivation (Yates et al., 2020).

It was noted that turned off cameras and distractions from the internet that students had at their fingertips presented challenges to engagement. While privacy and safeguarding concerns, 'Zoom fatigue', anxiety or stress have been raised as valid reasons for students

to keep their cameras turned off (Moses, 2020), data from this study indicates that teaching to 'a screen full of black squares' is likely to negatively impact student engagement and learning. Teachers rely on subtle feedback from students such as facial expressions or gestures which indicate if students are following their lessons or might require additional support, none of which is possible without seeing students.

Policies for camera use should thus weigh up the challenges and benefits of having cameras turned off and possibly consider the use of background filters if safeguarding and privacy are a concern. Where students are simply anxious to speak in front of a whole classroom, it might be beneficial to spend some time on formulating clear expectations about students' reactions to peer contributions or to offer them alternative ways to contribute.
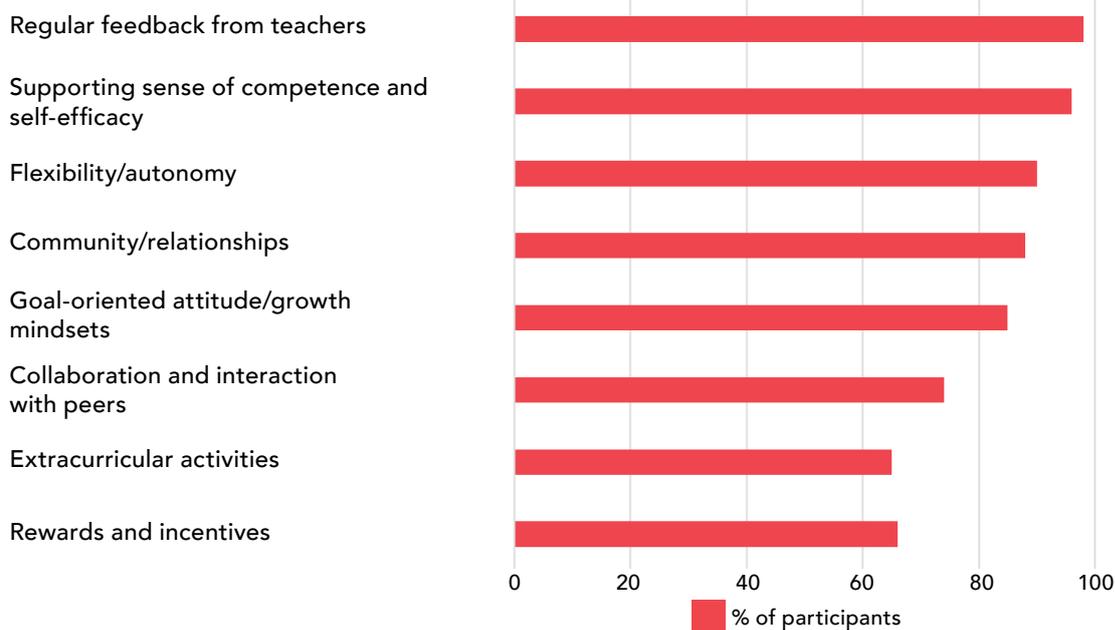
Figure 17: Use and perceived effectiveness of engagement strategies ordered from most to least effective

> *"Choice is a powerful factor and trust is a key enabler."*
>
> Secondary school senior leader, UK

> *"[E]ncouraging children to be in class was one of the most difficult things to do because they usually turn on the the Zoom, they click on the link, but they wouldn't put the camera on so you never knew if they were on the other side."*
>
> Secondary school teacher, Argentina

Time for social contact is key to supporting students' wellbeing

Past research has highlighted the negative impact the COVID-19 outbreak and resulting school closures has had on some student groups and teachers (Muller and Goldenberg, 2020; ImpactEd 2021; Guessoum et al., 2020).

Focusing on wellbeing as part of distance learning provision is thus essential if effective learning is to take place (CESE, 2020) and teachers have employed a range of strategies to support students' socioemotional development during distance learning. The most effective strategies to support student wellbeing included regular phone calls or messages to students and providing space for them to interact with peers.

This confirms the crucial role of social contact in distance learning settings to counter the well-documented risk of students feeling isolated (Mbukusa et al., 2017; Croft et al. 2010; Doyle and Hernandez-Cruz, 2019). Online spaces where students could interact with their peers were considered significantly more effective by participants from primary schools, which indicates that older students may have other channels such as mobile phones or social media to interact with their peers, whilst younger students rely more heavily on the social contacts that are facilitated by schools.
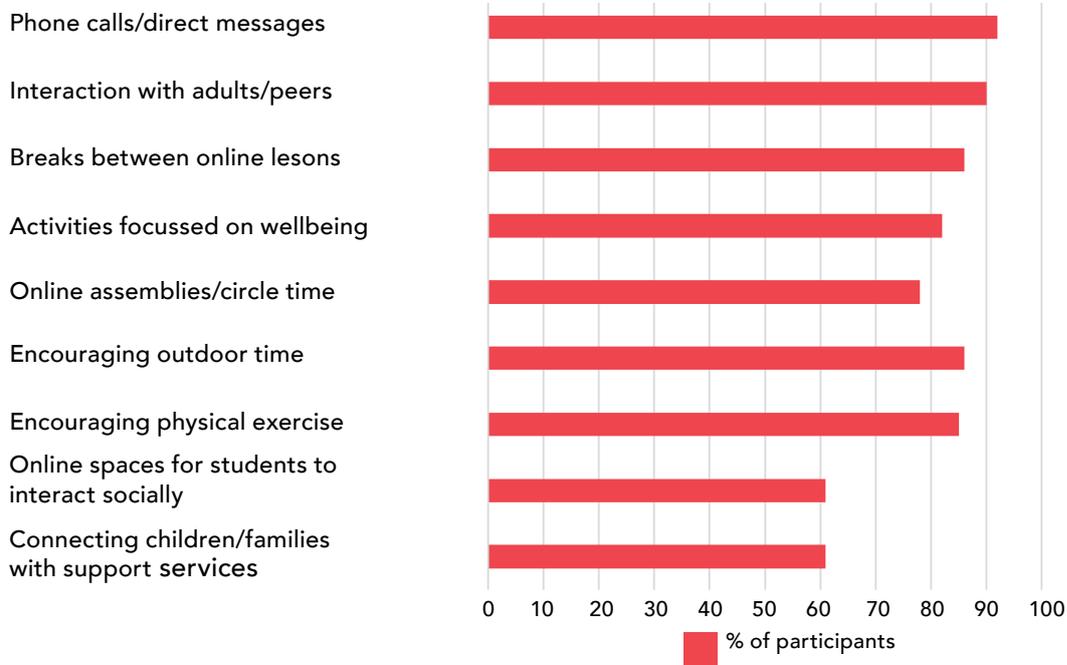

Figure 18: Use and perceived effectiveness of wellbeing strategies ordered from most to least effective
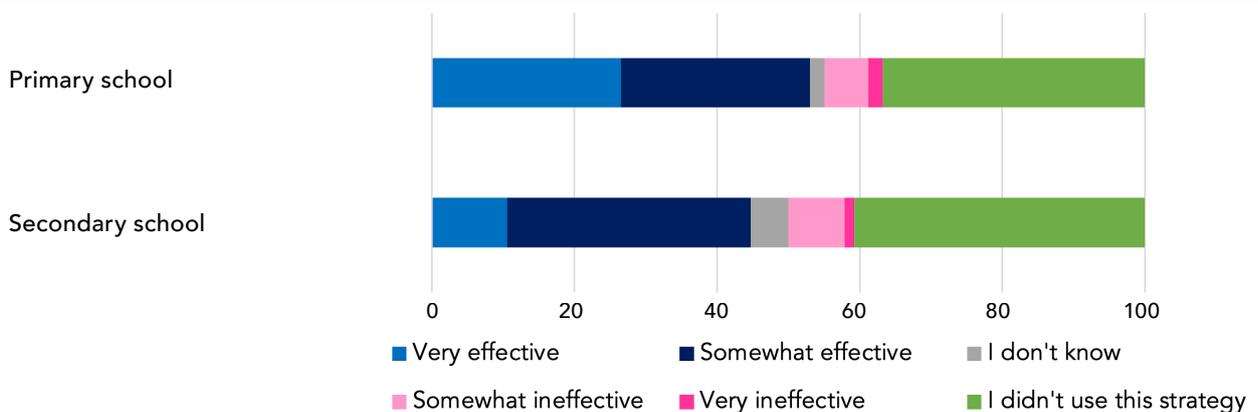

Figure 19: Use and perceived effectiveness of social online spaces, split by phase

Screen breaks and exercise are essential for wellbeing

Seventy-six per cent of teachers were concerned about extensive screen time for their students during distance learning. Eighty-two per cent of respondents found regular, extended breaks between lessons, including screen-free days to counter the potential negative impact of extensive screen time, to be effective in supporting students' wellbeing. This further supports previous research findings highlighting the need for regular screen breaks during distance learning (Mheidly et al., 2020).

Encouraging students to spend time outdoors and to get physically active were also considered to be important strategies. Eighty-five per cent of teachers reported using this strategy and sixty-seven percent thought that this was an effective strategy to support students' wellbeing. This further supports findings around the importance of physical activity and time outdoors for mental health (Bratman et al.,

2015; Wells and Evans, 2003; Roberts et al., 2019). It is also possible that 'green time' (outdoor time in nature) acted as a buffer against too much screen time (Oswald et al., 2020), helping students to find a healthier balance.

However, these strategies appeared to rely more heavily on adult support for younger students. It may thus be particularly important to ensure time for physical exercise is included in planning online learning, as not all younger students will have the necessary adult support available to exercise outdoors outside of regular lesson times.

Maintaining the positives of school life such as assemblies and celebrations was stressed as integral to student wellbeing by many participants and was also important to encourage student engagement.
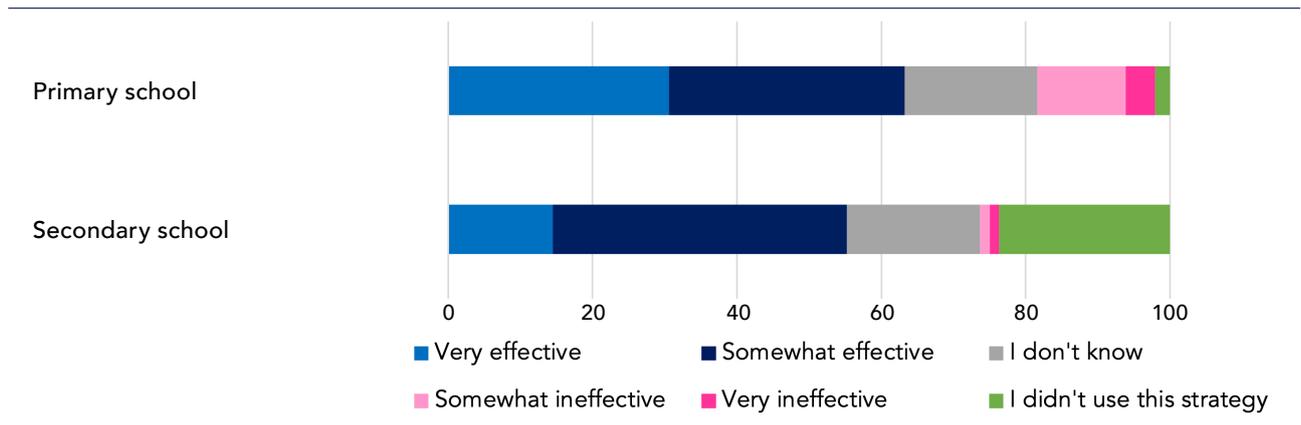
Figure 20: Use and perceived effectiveness of encouraging physical exercise, split by phase
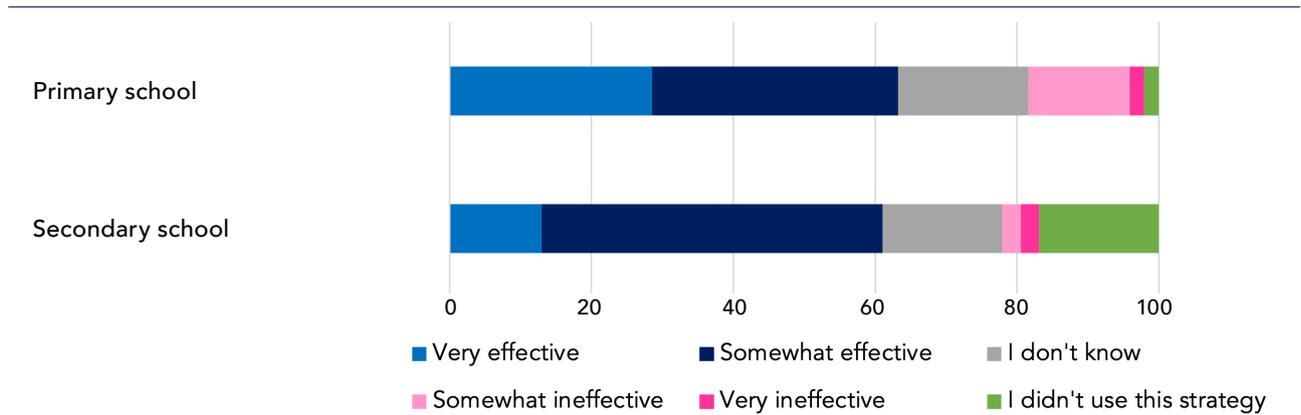
Figure 21: Use and perceived effectiveness of encouraging outdoor time, split by phase

"[S]omething we're really aware of is the kind of physical fitness of our students and young people, and the fact that for lots of our young people, the only real times they're active or they exercise for any duration of time is usually in school. [...] So we had challenges, we had fitness events where young people were coming together. They were doing yoga exercises. They were doing workouts. All of those kinds of things and they were really positive and I think that encouragement and connectivity worked really, really well."

SEND specialist teacher, UK

Supporting students with SEND requires personalised approaches

While some students with SEND struggled with the move to distance learning, others benefited from the opportunity to organise their own learning and study in a more conducive learning environment. This is in line with past research findings showing that distance learning can be a viable alternative for some students with SEND but also comes with inherent and sometimes additional challenges for them (Asbury et al., 2020; Toseeb et al., 2020).

Even though each learning difficulty and/or disability is different and students' needs are individual, some overarching benefits of distance learning included the opportunity to access content repeatedly, the availability of spellcheck and accessibility software/technology (i.e. connecting hearing devices to laptops, captions, screen readers), a more conducive learning environment and the possibility to self-pace their learning.

In contrast, challenges included less contact with teachers, more distractions from the online learning environment, more information to process, a stronger reliance on the written word – even though this benefited those with hearing impairments, and poor audio or video quality.

While an individualised approach that considers students' needs rather than merely their diagnoses is necessary, the data does seem to suggest that students with Attention Deficit Hyperactivity Disorder (ADHD) and Autism Spectrum Disorder (ASD) benefit particularly from clear routines, timetables and instructions, and students with dyslexia could be supported with dual coding and software that allows them to listen to rather than read feedback and texts. Students with visual or hearing impairments can be supported by making use of available accessibility software such as captions, magnifiers, screen readers or adapting font sizes. For students with Developmental Language Disorder (DLD), regular speech and language support and small-group interventions as well as recorded content can be beneficial. The sample size for teachers who experienced working with students with Down's syndrome is too small to draw any meaningful conclusions but parental support appears to play a particularly important role.

"Some students – particularly those with SEN/D made more progress and were happier during the lockdown due to being in school with fewer other pupils."

Primary school senior leader, UK

"We ran online sessions with our Pastoral lead and our Speech and Language specialist. This ensured this vital support did not stop and it meant pupils received live sessions where they could interact and learn."

Primary school senior leader, UK

"I think this (distance learning) should be used more, and that students respond better to recorded content and scaffolded progression routes, with specifically tailored content to best meet their needs. Sometimes forcing students to socialise is not academically helpful, I think the split between 'learning academically' and 'learning social skills' was really helpful. If they want to not speak while doing maths, that's fine. We can do speaking to adults later."

All-through school leader, UK

Blended learning – the worst of both worlds
without the right technological support

Sixty-four per cent of respondents taught simultaneously online and face-to-face as part of their distance learning provision, which many considered to be a major challenge. Their experiences are largely in line with previous research on blended learning (Weitze et al., 2013; Huang et al., 2017).

The key challenges relating to blended learning cited were technology, engagement and logistics.

Teachers found that students learning online were not able to see and hear them well as they moved around the classroom. However, standing still at the front of the classroom made lessons less engaging for students who were present in class, and prevented teachers from being able to circulate and check work.

Technological issues such as lags in video and voice transmission and managing students in-class and at home simultaneously were further challenges.

Being torn in too many directions and not doing justice to either group was another frequently mentioned challenge. Furthermore, noise levels in class, students working at different speeds and online students not being able to join in with practical activities were listed as barriers to effective blended learning.

Teachers highlighted the need for additional technology such as tracking cameras and microphones as necessary prerequisites for blended learning, which in most cases were not available to them. This led to low engagement from students online as they could not follow the action, and teachers had to split their attention between students in class and at home. Unless all classrooms are equipped with additional microphones and cameras that would enable all students to engage in the learning process, blended learning appears to combine the worst of both worlds, and students may be better served by a combination of asynchronous and small-group instruction.

"I found this to be extremely limited in terms of its effectiveness as the students in the class were envious of the students working from home and my ability to support both sets of students was severely impacted resulting in less-than-ideal lessons for all."

Secondary school teacher, UK

"We did this in the Autumn term when pupils were self-isolating. Those at home were really just sat listening in as we didn't have the capabilities to see them, and to project the lesson. It was hard as a teacher juggling screens so those at home could see, and those in class - but not showing the window with the register in, or your email should you need to check something/open a link. Sometimes poor behaviour came when there were more at home than in school and those at home could see each other, so might shout out or mess around!"

Secondary school middle leader, UK

The future of teaching – instructional videos and online parent evenings likely to stay

Finally, teachers were asked how their recent experiences with distance learning had impacted their views on the future of teaching and which aspects of distance learning they would like to take forward.

The opportunity for students to access content repeatedly (73%), improved independent learning skills (63%), increased flexibility for students (58%) and teachers (43%) and fewer behavioural issues and distractions (47%) were raised as the main benefits of distance learning. For primary school teachers, ease of communication with parents was raised as an additional benefit. This likely refers to the easier scheduling of 1:1 conversations but also parental evenings which, according to many teachers, benefited from a move online as it limited travel time and allowed parents to simply log on for their slot instead of spending a whole evening in school, which in turn improved attendance. Participants largely agreed on the benefit of recorded lessons, which most wanted

to hold onto as a way of supporting students during independent learning, helping with differentiation, and when they are unable to attend school. The ability to call on additional remote staff for more specialist teaching was raised as a major advantage for FE and rural settings, which otherwise may not have access to an abundance of human resources.

The majority of respondents also felt that distance learning has had a positive impact on those students who found more independent approaches to learning more motivating. Many want to continue to develop their students' independent learning skills going forward.

Despite major challenges for teachers and students, this period of distance learning has thus also brought some positive change and innovation into classrooms, which are likely to benefit students, teachers and parents for years to come.
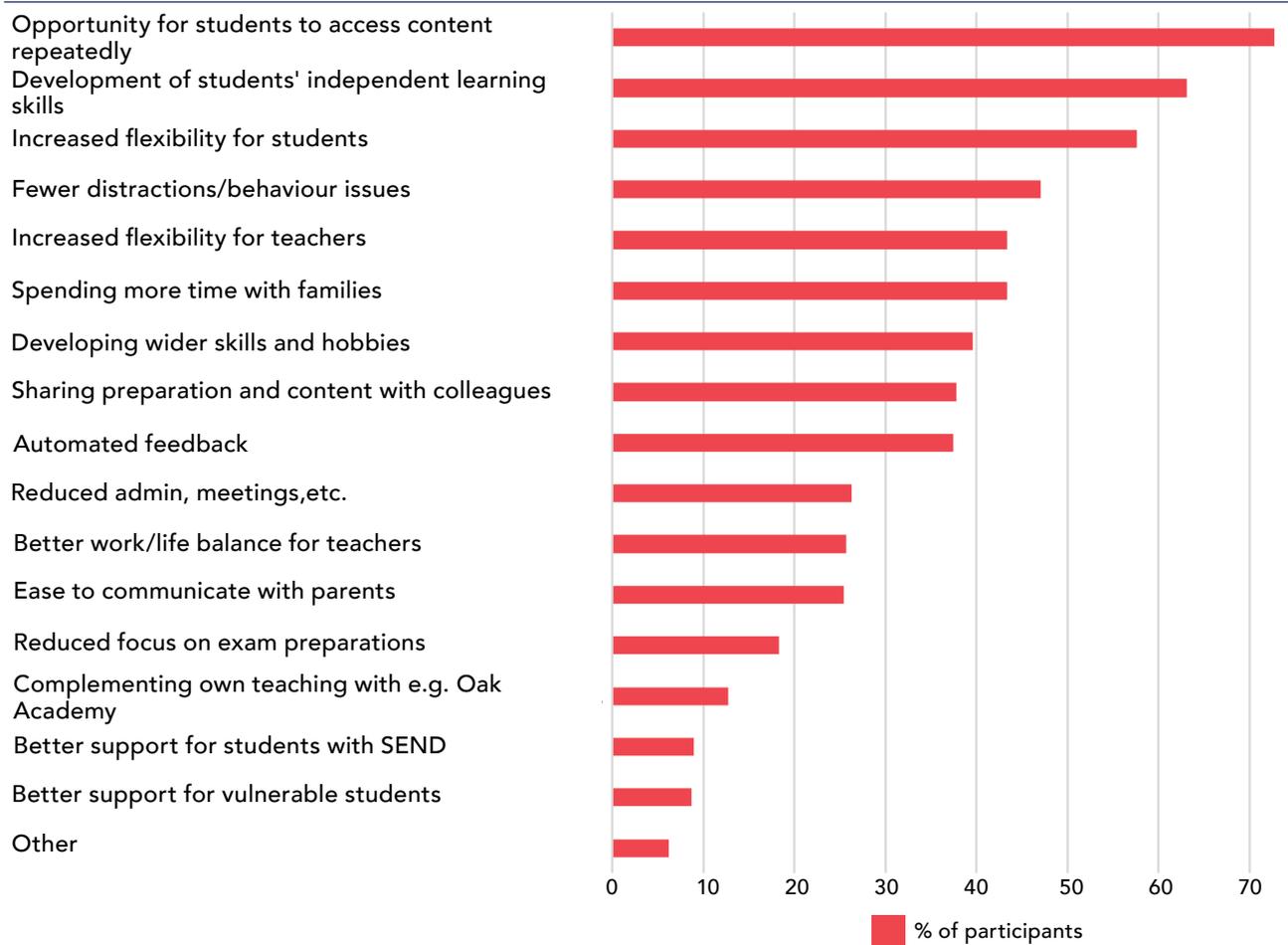

Figure 22: Benefits of distance learning

**Teachers' top tips for anyone embarking
on the distance learning journey**

We asked teachers to share their one piece of advice they would have liked to have received when they first embarked on distance learning. Here is a selection of their advice.

Technology

- Make sure you have all technological requirements (i.e. fast broadband, devices, etc) and get financial support where possible
- Take your time to find the platform that works best for you, your students and your school and learn how to use it
- Find out about students' access to technology and bandwidth
- Include explicit instructions on how to use technology for students and parents
- Get access to the necessary software from the start
- Seek out and engage with the available resources to develop your technological skills
- Have a plan for deploying technology to those without access
- Label work on platforms by topic, not date, to help students with revision
- Go online as soon as possible
- Get familiar with and use technology that will make your life easier (e.g. automated feedback).

Teaching strategies

- Keep it simple! Less is more!
- Find a balance between live and asynchronous teaching
- Break down learning into smaller chunks
- Use the resources that are out there
- Don't forget your work-life balance
- Include peer interaction for motivation and learning
- Take some risks and accept that making mistakes is part of the process
- Do not overwhelm students with too many resources at any given time
- Be creative and use a range of teaching strategies
- Students will make progress
- Use verbal feedback
- Good teaching is good teaching – whether is it online or offline
- Identify disengaged children and get them into schools to avoid them falling behind
- Go slow – do not try to cover too much material and keep the curriculum intent in mind
- Take time – a lot of things take longer online
- Trust students to do some work on their own.

Wellbeing

- Celebrate small victories
- Be kind to yourself and have realistic expectations
- Get appropriate office equipment (i.e. office chair, desk, graphic tablet)
- Stay in touch with your colleagues and engage in professional discussions
- Make sure students' workload is manageable and they get enough breaks
- Embrace the change
- Take regular screen breaks
- Have clear rules and expectations about live lessons, marking etc. and communicate them to all stakeholders from the start
- Work smarter, not harder
- Create a physical separation between your living space and your workspace
- Focus on wellbeing, socioemotional development and relationships
- Ask colleagues, SLT, parents etc. for help.

What teachers were most proud of during distance learning

We also asked teachers what they were most proud of in relation to distance learning and share a selection of their reflections below:

"The way in which all staff embraced change and challenged themselves to use ICT, I never thought the success we have had would ever have been possible."

"How we developed new ways of doing things and learnt new skills."

"The creation and adaptation of so many resources."

"Willingness of staff to go the extra mile."

"Being optimistic and maintaining good rapport with each and every student"

"I showed up every day for my students, even during tough times for my own family."

"That we rose to the occasion every time something new was thrown at us.....usually at very short notice.....and despite the battering that the education profession got continually in the press."

"Taking a whole staff body on a journey of learning in a rapid, challenging but positive way so that our students continued to learn and have contact with us throughout lockdown 3."

"The loving space I created online for my children to connect, chat, laugh and share their feelings and emotions with each other."

"Seeing my children on their online graduation day and hearing all their stories of the fun they had during online learning. We made it fun for them even when we didn't know it."

"The way I have supported the students that I teach to develop their ideas and to build resilience. I am proud of the skills I have learned and now feel confident to apply to my teaching."

"Our school did a fabulous job of supporting our community."

"The parents getting involved and many children making excellent progress - more than we imagined!"

"I stayed calm and became better at reassuring."

"I learnt how to record tutorial videos and how to upload them. I survived the most stressful period of my life."

"My students showed growth in all areas!"

"The way in which our staff did everything they could to enable the link between home and school to be as good as it could be. This was reflected in feedback from parents."

"As a team, we kept a clear sense of perspective, continued to work towards our school aims, staying true to our core values."

"How incredibly hard our staff worked collaboratively to support our families. This has impacted on relationships and resulted in how the children have returned to school with enthusiasm."

"How I have managed to integrate what we learned about using ed tech into my normal practice."

"That teaching never stopped and the whole school came together to support each other."

"How well our staff have safeguarded learners and thought outside the box to educate on door steps, through VLEs on Zoom and in classrooms. A personalised package of learning for individuals."

Methodology

Survey
Based on a focus group and findings from our previous distance learning report, we created a survey using an online survey tool, which consisted of 104 questions. The questions were piped, meaning that respondents answered only the sections that applied to their context/experience. Informed consent was a prerequisite to accessing the survey.

A link to the survey was shared in newsletters with members of the Chartered College of Teaching, on social media and via partner organisations to attract teachers beyond the Chartered College membership. Responses were collected in April and May 2021.

The final dataset consists of responses from **387 participants**. The majority of participants were UK-based (81%), female (68%), classroom teachers (45%), middle (25%) and senior (17%) leaders as well as headteachers (14%) with more than 10 years of teaching experience who were aged between 35 and 54 (70%) and worked in primary (32%) and secondary (50%) education. Thirty-six per cent of participants worked in schools where more than 20 per cent of students were eligible for Pupil Premium funding whilst 20 per cent of participants worked in schools with less than one percent of students eligible for such funding. Forty-two per cent of participants worked in schools where the percentage of pupils who speak a language other than the majority language at home exceeded the UK average of 20 per cent (DfE, 2021) and one quarter of participants worked in schools where more than half of students spoke a language other than the majority language at home. Detailed participant information is available in appendix A of the full report.

Focus groups
Ninety-six survey respondents registered their interest in taking part in the focus groups. In addition, 106 individuals signed up for focus groups via a separate online form that was shared on social media as well as Chartered College of Teaching member newsletters and via partner organisations. From these, 52 took part in the final focus groups. Detailed participant characteristics are available in appendix B. Nine groups were formed consisting of:
• teachers based outside the UK
• two focus group with primary school practitioners
• secondary school class teachers and middle leaders
• secondary school senior leaders and headteachers

• music and arts teachers
• drama teachers
• PE and dance teachers
• SENCOs, teachers and leaders from special schools and alternative provision.

Each online focus group lasted for one hour. Facilitators were trained employees of the Chartered College of Teaching who used a scripted set of questions which were sent to participants in advance. A full set of the questions can be found in appendix C of the full report.

Focus group sessions were recorded, anonymised and transcribed, then uploaded to MAXQDA. Themes were identified inductively and transcripts were then coded according to those themes.

Limitations
Self-selection instead of probability sampling was used for the survey and the focus groups, although the final focus group participants were selected to represent a wide range of experiences and settings. Moreover, the survey and invitation to join focus groups was mainly distributed through the Chartered College of Teaching and whilst participation was not limited to Chartered College members, they are likely to be over-represented. This also means that the sample is not necessarily representative of the whole teaching population. It should also be noted that the data on student progress that is presented here is based on teachers' perceptions rather than student self-report or a direct assessment of their progress and perceptions of learning during lockdown. Results from studies collecting such data should be used to complement the data presented here to gain a more conclusive picture. Most respondents who were based outside of the UK work in British or international schools, so while their lived experiences of lockdowns and support from the national government of the country they live in will differ, their views are possibly not representative of teachers working in state schools in those countries. Furthermore, only single coding was used for the qualitative data analysis due to constraints on time. Focus groups were conducted online due to the COVID-19-related social distancing rules, which enables a better geographical spread but can potentially influence group dynamics. Splitting the sample into primary and secondary to determine phase-specific differences reduced the sample size for each phase substantially. Follow-up studies with more participants should further investigate any trends presented here.

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