

Education in Times of Crisis: Effective Approaches to Distance Learning

Introduction and background

During the ongoing COVID-19 outbreak and resulting (partial) school closures, the main source of evidence about distance learning for teachers and policy makers was past research which was mainly collected in higher education settings. Initial research by the authors of this report identified 3 features of successful distance learning – scaffolding and metacognition, collaborative learning, and assessment and feedback. This latest report makes a significant addition to existing research. It presents findings from a research project which captured the views and experiences of 387 teachers across different phases and contexts. Respondents completed an online survey and participated in focus groups in spring 2021 to share their experiences with distance learning. Although the research was international, 81 per cent of the respondents were UK-based. The authors explored the extent to which these teachers' experiences map onto existing research evidence. They looked at phase specific differences and shared the innovations which teachers had made.

Key points

Approaches to distance learning

- The research highlights that the most effective approach to distance learning may be phase-dependent. Pre-made asynchronous and paper-based materials were more common in primary settings, whereas live teaching was more often used in the secondary phase. This may be linked to concerns about excessive screen time, limited digital literacy and the need for more adult supervision where younger pupils are concerned.
- Distance learning policies need to consider the balance between live and asynchronous methods, along with the balance between time which is spent on or off screen. It cannot be automatically assumed that live teaching is the best option for all students.

- Time for teachers to assess where students are in their learning, along with high-quality teaching for all that considers their starting point may be a more appropriate way forward than rushing into 'catch-up' (Moss et al., 2020).
- In addition to the much-discussed access to devices, students', teachers', and parents' digital literacy skills are essential prerequisites for effective distance learning. It is vital that all stakeholders receive adequate digital literacy training.
- The move to distance learning was associated with an increase in workload for many teachers, partly due to teachers' need to upskill themselves in little to no time, and partly due to parental and governmental expectations around live teaching and marking.
- In order to avoid an unnecessary increase in workload, the advantages and disadvantages of live and asynchronous online teaching must be weighed up and communicated clearly. Alternatives to written assessment should be incorporated.
- High-quality, pre-made asynchronous teaching materials play an important role 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, according to the data, used them much less.

Student progress and barriers to progress

- Thirty-eight per cent of respondents felt that their students had made about the same amount of progress during distance learning as they would have made in the classroom, and a small minority felt that students had made more progress. This is in line with Cavanaugh et al's research (2004) which highlighted the effectiveness of distance learning when students are engaged.
- Primary teachers reported less progress. Only 37 per cent felt that their students had made the same progress as they would have made in the classroom, compared to 51 per cent of secondary teachers. This may be because younger pupils were less able to access distance learning. The high number of secondary teachers who felt that pupils had made the same progress challenges some of the negative discourse on this issue.
- Since some pupils will have benefitted more from distance learning than others, there is a need for recovery which is personalised, and which considers pupils' individual circumstances during lockdown.

Feedback and assessment

- Two thirds of respondents stated that they provided feedback at least about as frequently in distance learning as they would have during face-to-face teaching. This opposes research suggesting that students may receive less feedback in an online learning environment as opposed to face-to-face teaching (Means et al., 2009).
- Teachers noted the lack of opportunity to give subtle feedback such as gestures or facial expressions. They



- used a range of more explicit feedback strategies such as verbal feedback (including digital feedback) low-stakes quizzes, and feedback on classwork.
- Automated feedback was generally used less by respondents from primary schools, indicating that younger students may rely more heavily on teachers interpreting and personalising feedback for them.

Collaborative learning

- Although over half of respondents used collaborative learning, most did so less frequently than they would in the classroom. Secondary school teachers used collaboration significantly more than primary school teachers. Safeguarding and access to technology were reported as significant barriers.
- Pairwork was considered more effective than collaboration in larger groups.
- Oral group work was considered slightly more effective than written work. However, written work benefitted students who had problems engaging with oral discussions due to SEND, or who felt more confident writing than speaking. Primary school teachers were less likely to find collaborations such as shared documents effective.

Scaffolding

- Instructional scaffolding may involve the use of instructional videos, demonstrations, rubrics and worked examples. Nearly 90 per cent of respondents used instructional scaffolding; 49 per cent used it more frequently than they would have during face-to-face teaching. Instructional videos were considered the most effective strategy and teachers combined self-made and existing videos. Primary teachers showed a strong preference for pre-made resources. Other common scaffolding measures were word banks, planning sheets, worked examples, and verbal annotation of model answers using Loom or EdPuzzle.
- Teachers highlighted several barriers associated with instructional scaffolding. They reported difficulty in gauging student understanding during distance learning, making it difficult to tackle misconceptions early on and to know how much scaffolding to provide. Many teachers were unsure as to whether the students had accessed the scaffolds provided.
- The importance of using readily available resources, such as those created by Oak National Academy in the UK, was also emphasised by some focus group participants.
- Metacognitive scaffolding focuses on developing students' learning habits, thinking skills and self-regulation – such as the use of timetables, reflection prompts, and resources which help students plan and monitor their own learning.
- Metacognitive scaffolding was used much less than instructional scaffolding. Teachers who did use metacognitive strategies (just over half), 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.

Wellbeing, motivation, and engagement

- 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.

- 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.
- Maintaining the positives of school life such as assemblies and celebrations was stressed as integral to student wellbeing by many participants in this study. Other key elements seen as vital to promoting wellbeing were extended breaks between lessons, screen free days, and encouraging pupils to get outside and be physically active.
- Over half of respondents reported that 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 engagement.
- Turned off cameras and potential distractions from the internet presented a barrier to engagement. Data from this study indicates that teaching to 'a screen full of black squares' is likely to negatively impact student engagement and learning. Policies for camera use should thus weigh up the pros and cons, and possibly consider the use of background filters if safeguarding and privacy are a concern.

Supporting students with SEND

- Although SEND pupils struggled with the move to distance learning, the research also highlighted several benefits which it brought.
- In line with previous research, this study showed that SEND pupils benefitted from the opportunity to organise their own learning and to study in a more conducive learning environment. They could access content repeatedly, and use spellcheck and accessibility software/technology (i.e., connecting hearing devices to laptops, captions, screen readers). They had more opportunity to self-pace their learning.
- The data suggests 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.

Teaching online and in person

- Teaching online and face to face was a major challenge. There was 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.
- Successful blended learning will require better access to technology such as better microphones and tracking cameras. In the absence of such technology, blended learning is the worst of 2 worlds. Pupils' interests would be better served by a combination of asynchronous and small group instruction.

The full document can be downloaded from:

<https://chartered.college/education-in-times-of-crisis-effective-approaches-to-distance-learning/>