

Remote learning: An evidence-based explainer

Centre for Education Statistics and Evaluation



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The disruption to face-to-face teaching in NSW in 2020 as a result of COVID-19 required schools to rapidly implement remote learning to ensure students continued to learn from home. This disruption to normal practice in schools has occurred as part of wider disruptions to everyday life caused by the COVID-19 pandemic. As a result, many families may be experiencing sudden financial difficulties, health and wellbeing difficulties, or new work demands that may create additional challenges to student learning (Peter Underwood Centre for Educational Attainment 2020; Victoria University 2020). This explainer summarises the evidence in relation to effective remote learning and highlights key considerations for learning in the face of COVID-19. It focuses on teaching quality, supporting teachers to implement high quality teaching practices, ensuring students can access learning, encouraging effective engagement with parents and carers, and considerations for the return to face-to-face teaching.

Putting the evidence in context

The disruption to face-to-face teaching in schools around the world has prompted a rapid research response to help inform effective approaches to continuing learning. It is worth noting, however, that there are gaps in this research. This is largely because most of the existing research was not developed during mass disruption to normal school operations, but rather investigates remote learning more generally. Most previous research has focused on a well-planned, intentionally designed and implemented remote learning curriculum for students who have

chosen to undertake their learning in this way (Education Endowment Foundation 2020). There is also very little research on primary schools with most of the existing research focused on the higher education sector or high schools. As such, these research findings may not be as applicable to younger students who need more adult support to facilitate their learning (Education Endowment Foundation 2020). This explainer should be read keeping in mind these limitations in the research base.

Teaching quality matters

Teaching quality is fundamental to the effectiveness of learning irrespective of whether a student is learning remotely or is in the classroom. The Education Endowment Foundation (2020) conducted a rapid evidence assessment of meta-analyses and systematic reviews related to remote learning and teaching and concluded that the quality of teaching is more important than how the remote teaching occurs. They found that as long as teachers were using high quality teaching practices there was no difference in achievement between students who were experiencing synchronous learning and teaching (students undertaking learning in 'real time', for example, video call classrooms) or asynchronous learning and teaching (students undertaking learning at their own pace, for example, pre-recorded instruction videos or assigned learning activities) (Education Endowment Foundation 2020).

There is evidence to suggest some high quality teaching practices, in particular, may be important for effective remote learning. These are explicit teaching, feedback, and assessment practices. The Education Endowment Foundation's (2020) rapid evidence assessment found that remote learning achievement is greater when teachers use explicit teaching practices, in particular, providing clear explanations that build on prior learning and scaffolding. Remote learning often requires students to learn with less direct and less frequent support from teachers and other adults, which can limit their opportunities to clarify understanding. Using explicit teaching practices that provide students with a clear understanding of what they have to do and how they can do it (Centre for Education Statistics and Evaluation 2020) is a way teachers can address the challenge of students having limited adult support. In addition, explicitly teaching strategies for independent learning skills that support students' persistence in the face of challenges, motivation and time management (for example, encouraging students to think of strategies to use if they get stuck, or facilitating use of routines and schedules) have been found to be important for successful remote learning (Education Endowment Foundation 2020).

The Education Endowment Foundation's (2020) rapid evidence assessment also found that student remote learning achievement is greater when students receive effective feedback than when they do not (Education Endowment Foundation 2020). Effective feedback can support students' positive feelings of self-efficacy, providing motivation for continued effort and engagement (Centre for Education Statistics and Evaluation 2020). This support may be especially important in the context of sudden disruption to face-to-face teaching because students are at greater risk of feeling disconnected from their teacher and less engaged in their learning (National Centre for Student Equity in Higher Education 2020). Teachers may need to adapt their feedback processes when students are learning remotely to ensure students continue to receive timely feedback, especially if there is limited synchronous teacher-student interaction. This could include using online quizzes or educational games with automated feedback, audio recording verbal feedback, sending images of written feedback, or providing students with a dedicated time to receive feedback on work (Education International 2020).

Another important consideration for high quality remote teaching is the use of formative and summative assessments (Education International 2020). Assessments are important tools for ensuring students and teachers know how learning is progressing, to inform next steps, and to have meaningful data to determine the effectiveness of chosen teaching strategies (Centre for Education Statistics and Evaluation 2020). However, when students are learning remotely teachers may not be able to rely on incidental formative assessment opportunities that occur frequently during face-to-face teaching, and may face equity, logistic, and integrity challenges to administering summative assessments (Education International 2020). Therefore, when students are learning remotely teachers may need to be more intentional and systematic in their formative assessment practices (for example, using exit tickets, online quizzes, creating prompts for discussion threads, or creating opportunities for students to create portfolios of their work), and adjust their summative assessments to ensure all students are able to access the assessment, understand the success criteria, are familiar with any technology needed to complete the assessment, and undertake the task independently (Education International 2020).

Learning remotely may impact student wellbeing

Learning remotely may contribute to students experiencing challenges to their wellbeing, including increased anxiety and a lower sense of connection to school, their teachers, and their peers (National Centre for Student Equity in Higher Education 2020). For effective learning to occur, it is important for student wellbeing needs to be addressed (Centre for Education Statistics and Evaluation 2015). Under normal operating conditions schools provide an access point to a large variety of services that are important for student wellbeing. Creating systems for remotely checking in with students (for example, regular phone calls to students and parents/carers, and using questions about wellbeing as part of marking attendance) and continuing to connect students to available services is vital for continued provision of wellbeing

support while students are learning remotely (Organisation for Economic Co-operation and Development (OECD) 2020; Peter Underwood Centre for Educational Attainment 2020). Creating opportunities for students to connect with teachers and peers in a more general sense may also be important for ensuring students feel connected to school despite physical distance (National Centre for Student Equity in Higher Education 2020). There is some evidence from remote learning research with older students that opportunities for peer interactions may be particularly beneficial for motivating students to engage in remote learning. Peer interaction opportunities might include giving peer feedback, sharing examples of good work, and opportunities for live discussions (Education Endowment Foundation 2020).

Teachers need support to implement high quality teaching practices

Effective remote learning approaches require teachers to translate high quality teaching practices into a new mode of delivery that continues to meet the needs of their students (Australian Council for Educational Research 2020; Education International 2020). Evidence from the higher education sector suggests that when redesigning curriculum for remote learning, teachers benefit from dedicated time for planning pedagogical practices, and training and support for technologies required to support remote learning (Australian Council for Educational Research 2020; Education Endowment Foundation 2020). To provide dedicated time for pedagogical planning, schools may need to consider strategic ways to use or reallocate resources, for example by employing casual teachers or redefining roles within the school to maximise planning time for classroom teachers. Training and support for any technologies required to support remote learning is also critical because teachers need to be able to effectively use these technologies to implement remote teaching practices and support students to access remote learning (Australian Council for Educational Research 2020; Education Endowment Foundation 2020).

Evidence from the higher education sector also suggests that meaningful collaboration with colleagues and formal professional learning opportunities are important for translating high quality teaching practices into a remote learning context (Peter Underwood Centre for Educational Attainment 2020). Creating opportunities for meaningful collaboration between teachers may be particularly

important when there is a sudden shift to remote learning (as opposed to a more planned move) because it allows teachers to rapidly share effective practices and can improve consistency of remote teaching quality across the school (Education International 2020). It may also increase teachers' sense of collective efficacy (Peter Underwood Centre for Educational Attainment 2020) which is important because, more generally, collective efficacy is a key driver of student learning outcomes (Centre for Education Statistics and Evaluation 2020). In addition, formal professional learning opportunities may be critical for addressing gaps in knowledge or to further build expertise in translating high quality teaching practices into the school's remote learning approach (Education International 2020; Peter Underwood Centre for Educational Attainment 2020).

Some students need additional support to access remote learning

There are some groups of students who are more likely to experience barriers to remote learning than others. These groups of students may include:

- Students from low-income families
- Students living in regional or remote areas
- Aboriginal students
- Students from non-English speaking backgrounds
- Students with disability or health conditions who have complex learning needs (Australian Council for Educational Research 2020; Peter Underwood Centre for Educational Attainment 2020).

Barriers to remote learning might relate to the home environment (for example, insecure and/or overcrowded housing, food insecurity, lack of physical and/or psychological safety, and not having access to appropriate learning materials, resources or learning space) or student skills and capabilities (for example, low levels of digital or reading literacy, or less well-developed independent learning skills). If these barriers are not addressed then existing disparities in learning outcomes are likely to be exacerbated (Victoria University 2020). Students who face barriers to learning may increase in number and/or be further impacted as a result of the wider disruptions caused by COVID-19, such as financial stress, physical disconnection from support services and/or health and wellbeing challenges (Peter Underwood Centre for Educational Attainment 2020).

Schools can address barriers to remote learning by knowing their students and their communities, harnessing available resources to meet students' needs, and designing their remote learning approach with accessibility as the first consideration (Australian Council for Educational Research 2020; Peter Underwood Centre for Educational Attainment 2020). It is particularly important that schools regularly check-in with every student and parents/carers identify and address accessibility issues, including any additional issues that may have arisen as a result of COVID-19 (Peter Underwood Centre for Educational Attainment 2020). In addition, if concerned about a student's lack of engagement in remote learning, it may be beneficial for schools to take a 'trouble shooting' approach that addresses accessibility in the first instance. The table on the following page (Table 1) summarises individual strategies that schools can put in place to provide additional support to students who may face barriers to learning remotely.

Table 1.

What schools can do to address barriers to remote learning (strategies collated from Australian Council for Educational Research 2020; Education Endowment Foundation 2020; Education International 2020; OECD 2020; Peter Underwood Centre for Educational Attainment 2020; Rapid Research Information Forum 2020).

Home environment

- Continue to work with students and families to connect them to available support services.
- Consider if food related school programs (for example, breakfast clubs, food technology budget) can be adapted to deliver food to students' homes.
- Ensure that child safety procedures and systems are continued and adapted where required.
- Provide required learning materials and resources such as pens and pencils, books, and computers, tablets and internet service (if learning online).
- Ensure that Aboriginal students continue to have learning experiences that involve culturally responsive teaching practices.
- Work with parents and carers of students with disability or health conditions to, where possible, transfer learning supports into the home environment.
- Design learning and teaching to not heavily rely on learning support from parents and carers.
- Work with parents and carers and students to create the best learning space possible.
- Make adjustments to accommodate students who may be learning in spaces that are not ideal, for example, provide text-based discussion options for students who are not able to join live video discussions due to background noise.

Student skills and capabilities

- Minimise the level of digital literacy required to access learning resources, for example, by providing a one-click access point to all online learning platforms, and limiting the number of platforms used.
- Minimise the level of reading literacy required to access learning resources by providing brief, plain language instructions, or by providing real time or recorded audio instructions for how to access learning resources.
- Support the development of students' independent learning skills by explicitly teaching strategies for time management, motivation, and persistence in the face of challenge.

Effective engagement with parents and carers is important for facilitating remote learning

Effective engagement with parents and carers is critical for remote learning because parents and carers are often directly involved in facilitating their child's learning from home. Ensuring parents and carers are supported to facilitate remote learning is particularly important for students who may require more extensive adult support (including younger students and students with additional needs) and for parents who may be limited in the level of learning support and resources they can provide (for example, because of their own education level, English language skills, health and wellbeing, household income, or work commitments) (Australian Council for Educational Research 2020; Peter Underwood Centre for Educational Attainment 2020).

Research about the importance of parent and carer engagement in student learning in general suggests that engagement is most effective when there is clear understanding about the different roles parents/carers and teachers play in learning, and where interactions are voluntary and focus on the student's learning and wellbeing (Australian Council for Educational Research 2020). In the context of remote learning, these findings suggest the importance of schools providing families with clearly communicated role expectations, ways to initiate contact with the school and/or teachers, and opportunities for sharing feedback about student learning and wellbeing. Care must be taken, however, to encourage parent and carer engagement without placing additional burden on them during a time when many other aspects of their lives are likely to be challenging (Peter Underwood Centre for Educational Attainment 2020; Education International 2020). Examples of ways in which schools could reduce the risk of overwhelming parents and carers during remote learning include: limiting the number of platforms parents and carers are expected to access, using communication methods that are familiar and comfortable for parents and carers, and coordinating the frequency of school communications (Education International 2020).

Return to face-to-face teaching

All students will need time to adjust back to face-to-face teaching, but some students may need additional support with the transition, including those most at risk of disengagement prior to the disruption, those with less well developed self-regulation skills, those who have experienced wellbeing challenges, or those from families that are newly experiencing challenges due to wider disruption caused by the COVID-19 pandemic (Peter Underwood Centre for Educational Attainment 2020). Teachers may benefit from professional learning about how to best address the learning and wellbeing needs of these students (Peter Underwood Centre for Educational Attainment 2020). Student learning progress will also need to be determined, and additional learning support provided where required to address any learning loss (Peter Underwood Centre for Educational Attainment 2020; OECD 2020). Some research has noted that there are likely to be significant losses in learning for students from disadvantaged backgrounds in particular (Centre for Independent Studies 2020; Victoria University 2020). The Grattan Institute (2020) has recommended small-group tuition programs and expanding successful literacy and numeracy programs to address these losses. It is also important that the expertise developed and the opportunities for professional learning that have occurred during this time are maintained and built upon. Teachers are now better prepared for any future disruptions to face-to-face teaching (for example, school closures caused by bushfires) and also better able to meet the needs of some students who may at times be unable to attend school but are able to continue learning at home (Australian Council for Educational Research 2020; Peter Underwood Centre for Educational Attainment 2020).

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