

# Evidence-based recovery strategies for students and schools

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Increasing teaching time, or ‘instructional time’ has been suggested as a strategy to help students make up for lost time in schools during the pandemic. [Some research](#) suggests that pupils can make an additional two months progress per year from extended school time. [Recent PISA data](#), on the other hand, suggests that on average, remedial or ‘after school’ lessons did not have an impact on student reading performance. [Recent evidence](#) from a survey with 888 UK parents also shows that most parents (56%) do not want the school day extended on a compulsory basis, with stronger opposition from parents with children in secondary schools.

On average, across OECD countries, data shows that students’ reading performance improves with each additional hour of ‘language of instruction’ lessons per week (e.g. English lessons in England). However, this increase only holds true for up to three hours of lessons per week. Once ‘language of instruction’ lessons exceed three hours, some students’ reading performance starts to flatten or even decline. On average across OECD countries, students spending more than five hours a week in ‘language of instruction’ lessons scored worse in reading than those spending three-five hours a week in class. A similar pattern has been observed in mathematics and when taking into account total learning time across all subjects. This is supported by [other research](#), which has found that the first two hours of instruction have the greatest effect on learning, and gains are much smaller if students have already had over four hours per week in that subject.

[Other research](#) on a subset of PISA data paints a more complex picture. It suggests that higher attaining students benefit significantly more from additional instruction time. Therefore, lower attaining students may fall further behind, widening the gap. This paper also suggests that additional instructional time outside the average teaching time is only 30-40% as effective as ‘ordinary’ teaching within school hours.

Reliably assessing the impact of increasing teaching time is problematic, as it depends on a number of factors, including teaching quality, student motivation and content of lessons. In addition, changes to teaching time often take place alongside other school reforms making it difficult to disentangle the specific effects of additional instruction.

As in the UK context, most students typically already spend at least three-five hours per week studying English and maths, and research suggests that exceeding this may not have a positive impact. We have chosen to focus here on five alternative strategies for supporting student progress and attainment following school closures.

## A quiet room for study

A quiet room where students can do their homework and study after school was the most frequently observed strategy for after-school support in the [PISA 2018 dataset](#) with advantaged schools providing this support more frequently than disadvantaged schools. Even after accounting for per capita GDP, students with access to quiet study space performed better on average

in reading, maths and science across countries.

Spending more time doing homework is associated with higher [PISA scores](#) but unintended consequences such as a negative impact on [family life or less time for leisure activities](#) need to be considered. Disadvantaged students also spend less time doing homework than their wealthier peers, perhaps due to a lack of space, computer/internet access or adult support. Access to a quiet study space in school may thus be especially important to those students who cannot access such a space at home or those who have additional learning needs that make it more difficult for them to concentrate in noisy environments.

Whilst evidence on the impact of background noise on concentration is complex, it suggests that intelligible speech and background music with lyrics may impact reading comprehension [particularly negatively](#), that [background noise from 70dB](#) can negatively impact the accuracy of students’ answers to factual and word learning questions and that students with additional learning needs, such as [hearing impairments, EAL or those who receive learning support](#), may be particularly negatively affected by background noise.

## Peer tutoring

Peer-to-peer tutoring was also associated with higher student performance in the latest [PISA data](#) although to a smaller extent. There is extensive research on peer tutoring and, overall, it has been found to have a positive effect on attainment equivalent to [five months’ additional progress](#), with

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benefits identified for [primary as well as secondary students](#). Some evidence suggests that gains are greatest for [children with SEND and those who are low attaining](#) and that peer tutoring programmes are most effective when they [take place during school hours](#).

Research has also shown that peer tutoring can lead to other positive outcomes, such as [improving mathematics self-concepts](#) and [attendance and attachment to the school](#). The majority of peer tuition research has been conducted in relation to mathematics and reading tuition but there have also been studies demonstrating positive effects from other subject areas.

However, some evidence suggests that peer tutoring does not always lead to improved attainment. Effects may be heterogeneous; a 2016 review on the effects of cross-age peer tutoring for 5-11yr olds found small significant effects for reading decoding and comprehension but no positive effects for maths. Other research suggests that, whilst tutoring can lead to increases in attainment for tutors, [attainment effects may be smaller for tutees](#). Tutees may even experience attainment declines if participation leads to increased [learning stress](#).

It is therefore important that [tutors are adequately supported and that tutoring supports rather than replaces regular teaching and that implementation is monitored and evaluated on a regular basis](#). It has also been suggested that [4-10 week blocks of intensive tutoring](#) may be more effective than longer periods and that short bursts of less

than 30 minutes at a time are optimal.

## Extracurricular activities

A [report](#) from the social mobility commission states that extracurricular activities result in a range of positive outcomes for young people, including improved attendance, confidence and social skills.

Countries whose schools offer a larger amount of creative extracurricular activities also showed greater equity in student performance and students enrolled at schools providing such activities perform [better in reading on average](#). Some research also suggests that extracurricular activities can have a positive impact on [academic achievement](#) and [literacy development](#). The EEF's Teaching and Learning Toolkit also reports moderately strong evidence that arts participation can have a [slight positive impact](#) on student academic attainment in English, maths and science and across primary and secondary schools. The toolkit draws a similar conclusion for sports participation and states that it can lead to [an additional two months' progress](#). Recent evidence from a study in the UK showed that when combined with a structured numeracy programme and used as an incentive, sports participation can even boost progress by ten months.

[Recent data from a survey with parents in the UK](#) also found that 65% would welcome an extension of the school day for additional sports or arts and 60% are particularly keen for children to engage in additional sports practice before or after school. However, 79% also say that any extension of the school day should

be voluntary, rather compulsory.

Extending the extracurricular offer in schools may be particularly important for students from lower socio-economic backgrounds, who have been disproportionately affected by school closures. Three in five parents receiving benefits in the UK reported in [a recent study](#) that an extension of the extracurricular offer might provide their children with opportunities they would otherwise not have access to.

Providing students with access to (additional) extracurricular activities may hence not only broaden their curricular experiences and develop their expertise in these subjects but may even have a positive impact on their academic achievement. This is particularly relevant for students from disadvantaged backgrounds who have been disproportionately affected by this crisis and who may not have access to extracurricular activities outside school. Furthermore, such initiatives are more likely to be supported by parents, as long as they are offered on a voluntary basis. Extracurricular activities should hence be considered by schools and policymakers as part of recovery strategies.

## Spending time outdoors

Outdoor time in nature may be a particularly helpful approach for disadvantaged children who have been disproportionately affected by school closures. Some research suggests that vulnerable children, [including those from challenging backgrounds, those who are perceived to be underachieving and those with challenging behaviour](#) may reap the greatest benefits from natural

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outdoor play and learning. Therefore, spending more school time outside could potentially help narrow the gap that school closures are thought to have widened.

Some of the most robust research evidence supports claims that spending time outdoors in nature benefits children's physical and mental health, emotional regulation and motor development. There is also good evidence of a link between nature exposure as a child, and [pro-environmental attitudes in adulthood](#). Whilst research on the impact of outdoor learning on educational attainment is [less common](#), a systematic review on whether access to green space impacts the mental wellbeing of children concluded that nature access was beneficial for [attention, memory, self-discipline and cognitive development, in addition to being associated with better wellbeing and overall health](#). These findings suggest that outdoor activities may be a useful tool in supporting young people's mental and physical health, helping to rebuild their self-confidence and social skills post-lockdown whilst also having a positive impact on learning.

## Socio-emotional interventions

The ongoing crisis has put a substantial strain on the mental health and wellbeing of teachers and students and, whilst not all students may have been equally negatively affected, some may benefit from additional socio-emotional support. Schools may thus choose to support pupils' increased social and emotional needs by spending more time teaching content that explicitly relates to personal, social and emotional development. There are numerous

schemes and programmes that address these areas of learning – these can be taught as whole class or small group/ individual interventions.

A [meta-analysis of 213 school-based interventions](#) found that in general, social and emotional learning (SEL) programmes are effective – participants demonstrate significantly improved social and emotional skills, attitudes, behaviours and academic performance when compared with a control group. Whilst only a small number of studies contained follow-up information, those that did showed that effects were still statistically significant six months after the intervention. Well-implemented SEL programmes were found to be effective whether they were taught by external specialists or in-school staff, suggesting that they can be incorporated into the curriculum, and were effective at all age levels and in both urban and rural schools. However, there is a lack of research on which specific aspects of SEL programmes are most effective; this is because the majority of programmes combine a wide range of strategies and content, making it difficult to extrapolate the individual effects of each.

## [Guidance from the Education Endowment Foundation](#)

recommends that SEL skills in primary schools are taught explicitly both in dedicated time and throughout everyday teaching. This involves expanding children's emotional vocabulary, supporting them to develop self-awareness and self-regulation, and teaching relationship skills and problem-solving strategies. The report suggests:

- modelling the social and emotional behaviours that children should learn

in addition to adopting an evidence-based programme that is regularly reviewed and adapted

- establishing school-wide expectations and routines which support social and emotional development and ensure behaviour policies are aligned with these
- engaging with parents to reinforce skills in the home environment.

This guidance was produced from surveys with 436 primary schools in England, an advisory panel, and an evidence review of international research. Other research suggests that social and emotional learning is best taught not as discrete lessons or units, but through being embedded throughout the school day, as part of a whole-school culture. Other suggest that [‘SEL should exist everywhere at school, across the building – with every adult in the building on board. Educators should teach SEL through strategies, routines, and structures, as opposed to just through lessons and curricula’](#).

## Conclusion

This brief overview shows that after-school remedial lessons may not be the most effective intervention, yet would be a very costly strategy to support student attainment post lockdown.

Research suggests that the quantity of time spent in school appears to matter less than how this time is used. The [OECD's analysis](#) of 2018 PISA data states ‘the time spent in school is, in fact, much less important than how the available time is spent and on which field of education, how motivated students are to achieve, how strong the curriculum is

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and how good the teachers are?

Teachers in England already have one of the longest working weeks (nine hours above the average) out of the countries participating in the Teaching and Learning International Survey (TALIS). [Analysis](#) of this data suggests that this is because teachers in England spend more time on planning, marking and administrative tasks. Thus it may be more effective to support teachers by reducing other workload burdens, in order to allow them to focus more exclusively on quality teaching.

The [Education Endowment Foundation review](#) on extending school time has been cited by the Department for Education, yet the Education Endowment Foundation categorises this as a low-impact strategy based on only moderate evidence, stating that increases in school time should be supported by both parents and staff. [Existing research](#) evidence and [recent polling](#) shows that parents are not necessarily in favour of extended school days with concerns being raised around increased fatigue and stress for students, reduced time to spend with family and on out-of-school hobbies and children travelling home alone later in the evening. A longer school day may also reduce the time young people have available to exercise and to spend time outdoors during daylight hours, both of which have been shown to have significant mental and physical health benefits, unless these are included as part of recovery plans.

Moving forwards from the pandemic requires teachers, school leaders, policy makers and parents to work

together. Implementing strategies that are grounded in clear research evidence will maximise our chances of success. However, we must also take full consideration of teachers' professional insights.

Teachers are best equipped to decide how to support the progress and wellbeing of their students and should not be disempowered in such decisions. They are able to weigh up the associated costs and benefits to staff, students and families, considering practical implications and impact on student and staff wellbeing and workload.

Of course, even with the suggested strategies we have outlined here, there are limitations to such research and occasions when findings contradict one another. Such decisions are always complex and multifaceted. Teachers are best placed to know what is possible to implement successfully in their settings and this, such decisions should not be taken out of teachers' hands.