

Understanding Progress in the 20-21 Academic Year: Interim Findings

Introduction and background

This report from the DfE presents the Education Policy Institute and Renaissance Learning's first assessment of the learning loss experienced by pupils in England as a result of the coronavirus (COVID-19) pandemic. The analysis is based on pupils' results in Renaissance Learning's Star Assessments which are frequently used by schools as a baseline assessment for reading and maths. Just over 1 million assessments were carried out in the first half of the autumn term 2020. Looking at scores for previous years, analysts can predict what a pupils' expected outcome would have been under normal circumstances in 2020-21 and to then compare this to the pupils' actual score. For example, a pupil may have had a score of 600 points in 2018-19 and a score of 675 in 2019-20. Using an algorithm, their predicted score for 2020-21 would have been 700 points. If their actual score is 675 points, they have a learning loss of 25 points. This is equivalent to 3 months of learning. Having calculated a mean learning loss (or indeed gain) for each individual pupil it is then possible to aggregate up for specific groups. This analysis focusses on pupils in Years 3-9 as they constituted the largest sample size of those who took the assessment.

Key findings

Changes in mean attainment (reading and mathematics)

- The first analysis of outcomes considers the average outcomes in Star reading and Star maths in the first half of the autumn term in each of the last 3 years by year group.
 - In primary year groups the average results in reading in 2020-21 are lower than in both 2018-19 and 2019-20 – by between 10 and 12 scale points.
 - In secondary year groups, the average results in reading in 2020-21 are broadly the same as in 2019-20, and for year 9 pupils they have slightly increased.
 - In mathematics, results in 2020-21 are substantially lower than in 2019-20 for both primary and secondary pupils. For primary pupils, results are 23 scale points lower than in 2019-20 and for secondary pupils, results are 35 points lower than in 2019-20 (though note that the sample sizes here are relatively small).
 - It should be noted that the methodology developed to estimate learning loss includes modelling of how results may behave been expected to change this year in the absence of a pandemic.
- there does not appear to be any significant difference between primary-aged and secondary-aged pupils.
- Pupils who have just started in year 6 and pupils who have just started year 9 experienced slightly larger losses (2.0 months).
 - The smallest learning loss (0.9 months) is seen in pupils who have just started year 7. One possible explanation is that this year group was out of school for less time than others, as schools were expected to be open to reception, year 1, year 2, and year 6 from 1 June 2020.
 - It should also be noted that this is the smallest group for which results are presented - the number of pupils included is significantly lower than in last year's data. It is possible that there is a systematic bias in the schools that have participated in Star reading assessments to this point (e.g., schools that have historically demonstrated lower results of progress or pupil groups that make less progress on average may have been less likely to take the assessment).
 - If the scores had continued to improve at the same rate as between 2018-19 and 2019-20, the degree of learning loss is potentially higher – by 0.4 to 0.8 months. However, if 2019-20 was a high-point, then the learning loss is potentially lower – again between 0.4 and 0.8 months.

Estimates of learning loss: reading

- Looking at pupils in Year 3-9, the analysis shows that all year groups appear to have experienced learning loss –



Estimates of learning loss: mathematics

- The sample sizes in mathematics for secondary schools (just over 1,000) are too small to draw conclusions about learning loss. The numbers mean that any estimate will be based on a very small number of schools and results are likely to reflect the individual circumstances of those schools rather than being an estimate of the effect on the system.
- The effects for mathematics are larger than for reading. Amongst primary-aged pupils (including pupils in year 7, since the learning loss was primarily experienced during year 6) it is estimated that pupils lost just over 3 months of learning.
- Pupils made just under one month less progress in 2019-20 than pupils in 2018-19. If the system had continued to decline at the same rate as between 2018-19 and 2019-20 then the degree of learning loss is potentially lower – around 1 month. However, if 2019-20 was a low point, then the learning loss is potentially around one month higher.

months) but this was lower than in medium and high FSM schools (2.2 and 1.8 months respectively).

Learning loss by region and school-level disadvantage

- Sample sizes prohibit robust analysis at regional level in mathematics. In reading it has been necessary to combine year groups.
- There appear to be some regional disparities in the level of learning loss in reading with pupils in the North East and in Yorkshire and the Humber seeing the greatest losses. In terms of raw 'learning loss', primary-aged pupils in the North East and Yorkshire and the Humber lost 2.8 months, pupils in London lost the least at 1.1 months.
- After adjusting for historic differences in pupil progress, primary-aged pupils in most regions (including London) are estimated to have typically lost between 1.7 and 2 months. However, pupils in the North East and Yorkshire and the Humber have still lost slightly more – 2.4 months and 2.2 months, respectively.
- In terms of raw 'learning loss' in reading, secondary-aged pupils in the North East and Yorkshire and the Humber lost 3.3 and 2.8 months respectively; pupils in London lost the least at just 0.6 months. Once adjustments are made for historic differences in pupil progress, all regions have experienced a loss of at least a month. Pupils in the North East and Yorkshire and the Humber appear to have experienced the greatest learning loss (2.3 and 2.4 months respectively). Learning losses were smallest in the South East, the East of England, and the North West.
- In terms of raw 'learning loss', primary-aged pupils in schools with high levels of Free School Meals (FSM eligibility) experienced the greatest reading loss of 3.0 months and those in low-FSM schools experienced an apparent loss of 0.5 months. After controlling for historic rates of progress for pupils in different school types, primary-aged pupils in low-FSM schools still experienced a learning loss (1.7 months) but this was lower than in medium and high-FSM schools (2.0 months).
- In terms of raw 'learning loss', secondary aged pupils in high-FSM schools experienced the greatest reading loss of 3.7 months and those in low-FSM schools experienced no loss. Controlling for historic rates of progress for pupils in different school types reveals that secondary aged pupils in low-FSM schools did experience a learning loss (1.5

The full document can be downloaded from:

<https://www.gov.uk/government/publications/pupils-progress-in-the-2020-to-2021-academic-year-interim-report>