Expert Report for the UK Covid-19 Public Inquiry

Module 8 – Children and Young People

LESSONS IN LEARNING:

The Impact of Covid-19 on Educational Provision, Support and Progress

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Author statement

We confirm that this is our own work and that the facts stated in the report are within our own knowledge. We understand our duty to provide independent evidence and have complied with that duty. We confirm that we have made clear which facts and matters referred to in this report are within our own knowledge and which are not. Those that are within our own knowledge we confirm to be true. The opinions we have expressed represent our true and complete professional opinions on the matters to which they refer.

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Professional background and expertise

1. Professor Gillean McCluskey is Professor of Education at University of Edinburgh. Her research focuses on social justice in schools, inequalities, school exclusion and restorative justice in education. She recently led on a series of expert reports to the Scottish Covid-19 Inquiry on the impacts of the pandemic on children and young people's education and certification. In 2024, she also completed work on a major Economic Social Research Council (ESRC) grant on the political economies of school exclusion across the four jurisdictions of the UK, working with colleagues at University of Oxford, Cardiff, London School of Economics and Queen's University, Belfast. Other recent collaborative work has included an examination of ways in which the police can rebuild relationships with teenagers in local communities following the pandemic; and cross-cultural understandings of restorative justice in education. She has a strong commitment to research that assists policy formation and development.

2. Professor Cathy Lewin is Professor of Education at Manchester Metropolitan University. Her research focuses on the use of educational technology to support teaching and learning in and beyond school contexts. Previous projects include government-funded evaluations (e.g. ImpaCT2, ICT Test Bed) and the FP7-funded iTEC project (€9.45 million). More recently, she led an evidence review on digital technology and learning for the Education Endowment Foundation (EEF). Current projects include an evaluation of an iPad initiative for a large multi-academy trust in England which focuses on digital inclusion and teachers' pedagogy. She is also co-leading an efficacy study of a digital tool to support the teaching of reading in primary schools.

3. Professor Jo Van Herwegen is Professor of Developmental Psychology and Education at UCL Institute of Education (IoE), UCL's Faculty of Education and Society. She has an academic background in linguistics and educational neuroscience and she obtained a PhD from King's College London in 2010 in developmental psychology and education. She has extensively researched the education provision and outcome for students with Special Educational Needs and Disabilities (SEND) and how these can be improved. During the Covid-19 pandemic, she co-led several studies that examined the impact of school closures on the educational and mental wellbeing outcomes of students with Special Educational Needs and Disabilities (SEND) and their families, including a large international study that included over 10,000 individuals with SEND.

4. Jessica Talalay is a PhD Researcher studying the impact of a 1:1 iPad initiative for disadvantaged primary students using statistical modelling of Department for Education (DfE) data. She has experience working in education, care, community, academic and non-profit settings focusing on impact measurement, evaluation, and SEND provision. Research interests include EdTech innovation, social disparity, healthcare access and mixed-methods applied research.

5. Dr Annie Taylor has extensive experience in policy, practice, and research spanning health, social care, and education. She has been involved in various qualitative and mixed-methods research studies, including systematic reviews, across the public, academic and third sectors, with a focus on children and families, poverty, inequality and exclusion. She worked on several evidence reviews for the Scottish Covid-19 Inquiry.

6. Dr Helen Williams completed her EdD from UCL's Institute of Education in 2022. Her areas of research interest include mathematics education and pupils with SEND. Helen is currently working on various mathematics educational research projects at UCL IoE, including dyscalculia.

Executive Summary

Educational contexts in the UK

7. Educational contexts across the UK differ. In Northern Ireland, Scotland and Wales, education systems are devolved; these jurisdictions make their own education policy and funding decisions separately from the Department for Education (DfE) in Westminster. As the UK entered the pandemic, the education budget was higher per child than the OECD average, though it had also been falling overall. There was good knowledge and understanding across the education sector of factors that contribute to children's ability to learn and achieve well at school. Schools had high and stable attendance rates.

8. Unlike the rest of the UK, England has a diversified, marketised education system, which has moved away from local authority management to emphasise headteacher autonomy and control. This has led to mass expansion of academisation, but also fragmentation, with different policies and regulations for different types of schools.

9. The UK's education system was under severe pressure arising from a range of factors, including a long period of funding constraints, difficulties with teacher recruitment and retention, increasing levels of staff stress and industrial action focused on pay, pensions and working conditions.

10. There were deepening concerns about the UK's standing in terms of attainment in international assessments, with signs of stagnation or decline in scores in key subjects. In the decade leading up to 2020, results in national exam qualifications such as 'GCSEs' or 'Nationals' were generally strong, though progress had slowed in some areas.

11. The poverty-related attainment gap (the difference in academic attainment levels between children living in the most affluent and least affluent circumstances) had been narrowing in the early 2010s but had stalled by the time the pandemic started. It was well known that children living in families facing financial precarity and hardship were likely to have poorer physical and mental health than their peers and to have lower attainment. There were also other key attainment gaps related to sex and ethnicity. Girls continued to outperform boys; with the gap constant over time. Trends in inequalities on the basis of ethnicity were more varied, with, e.g., Chinese and Indian learners consistently outperforming their white British counterparts, while

learners from Gypsy, Roma and Traveller communities continued to see the lowest levels of attainment.

12. Learners with special needs had seen attainment levels rise in the ten years leading up to the pandemic, although this varied, often in relation to the level and complexity of need. For example, children with dyslexia saw improvements but those who were 'looked after' (ie in the care of the local authority) were still more likely than others to under-achieve.

13. There was substantial pre-existing knowledge of a digital divide across the UK: inequalities in both children's access to technology and the broader factors influencing their ability to engage with online teaching and resources (such as digital skills and parental support, and the accessibility of learning platforms and digital materials). Evidence of the impact of educational technology on learning and attainment in school contexts prior to the pandemic is mixed and often depended on factors such as context; interest in online learning was increasing (with very little evidence on its effectiveness in school contexts) but most schools had limited experience beyond homework provision. Not all schools had sufficient infrastructure in place to support online learning, and policy makers were aware of this before the pandemic.

Learning during the pandemic

14. The national provision of technology services and resources in Northern Ireland, Scotland and Wales, including national learning platforms, meant that these jurisdictions were better-placed than England to support schools and teachers as the pandemic began. Unsurprisingly, primary schools had less well-developed digital infrastructure than secondary schools. Uptake of professional development in technology use had been relatively low across the UK prior to the pandemic. Many teachers across the UK felt unprepared to support remote online learning specifically, and many identified the need for further training.

15. When the country went into lockdown and schools closed to most children in March 2020, the switch to 'emergency remote learning' was not carefully planned and designed, and online provision was markedly different from high-quality online learning. Understandably, given the lack of readiness of schools as they closed, there was a wide variation in the amount, types and quality of provision offered to learners, as well as in the take-up by learners. Learners were typically provided with worksheets, assignments, and pointed to educational videos and other online

resources (if they had appropriate home access). Live online lessons and online discussions were uncommon, except in private schools which were generally better resourced and more digitally mature than state schools, meaning they were better placed to support online remote learning.

16. This brought the digital divide into sharp focus, particularly in schools serving the highest proportion of learners from disadvantaged backgrounds (as measured by eligibility for Free School Meals). In England for example, 12% of teachers from these schools reported that more than a third of their class did not have adequate access to the internet for learning purposes, compared to only 1% of teachers from schools serving the highest proportion of learners from advantaged backgrounds (including private schools). Furthermore, poor housing conditions and poverty were highly significant factors affecting children's ability to learn at home and their educational attainment. For example, many disadvantaged learners were hindered by not having a quiet place to study at home.

17. Later in the pandemic, and unsurprisingly, there was a notable shift in most schools, as school digital infrastructure improved, and teacher knowledge and confidence developed. Online learning was more carefully planned than in the first period of school closures and provision of 'active' remote learning strategies, such as live lessons, increased. This was underpinned by improved and more detailed guidance from governments across the UK, and the continued development of digital educational resources (for example, pre-recorded video lessons). Stakeholders felt that the quality of provision, curriculum coverage and time spent learning, all improved. Learner engagement with remote learning improved in relation to the first period of school closures, and schools were monitoring this more systematically than they had done previously. However, many teachers considered that learner engagement in online remote learning (such as participation in live lessons or submission of work) was lower than that experienced when teaching in-school. Overall, variability in provision and uptake of remote online learning across schools remained, with disadvantaged learners typically having the lowest quality learning experiences.

18. Parents and carers had greater responsibility for their children's education (particularly those at primary school) with great variation in the amount of time they had to devote to this. Differences related to work commitments and were not related to socio-economic status. However, parental ability and confidence to support learning were associated with parental educational background and income levels,

with parents from more advantaged backgrounds better placed to offer the support required.

19. England, Northern Ireland, Scotland and Wales all made provision for vulnerable children and the children of key workers to physically attend school during school closures. Eligibility criteria for attendance varied between, and within, UK jurisdictions and over time. Definitions of vulnerability were criticised for lacking clarity.

20. Schools re-opened in a variety of formats following school closures. The four jurisdictions differed in their policy decisions around when and how to re-open schools. They also took different approaches in relation to guidance and advice on curriculum coverage, for example, England opted for a detailed and prescriptive approach with regular updates and tailored guidance for specific age groups. A more general, flexible approach was adopted in Northern Ireland, Scotland and Wales.

21. UK jurisdictions varied in their policy approaches to attendance, for example, in Scotland, schools were advised not to mandate attendance. In contrast, in-person attendance was mandated in England when schools were open (with the exception of the period when some schools were reopened prior to the 2020 summer holidays, during which fines were suspended) and parents could be prosecuted if their children did not attend.

22. Children from lower socio-economic backgrounds and those with special needs missed more school than others post-lockdown due to sickness or self-isolation related to Covid-19, but also due to a widening gap in non-Covid-19 related illness.

23. As the pandemic developed, recommendations emerged to incorporate lessons learned about online learning in school contexts and to address inconsistencies in digital skills for staff and children. Government policy makers were urged to address the digital divide in a practical way. The Covid-19 pandemic significantly exposed and, in some aspects, exacerbated both the digital divide and the attainment gap in the UK.

The impacts of the pandemic on learning and attainment

24. During the pandemic, all four UK jurisdictions developed approaches to monitoring the impacts of school closures on attainment, relying on their existing data collection and analysis systems, but also on newly commissioned research collaborations and policy evaluations.

25. When all national exams were cancelled in 2020, an alternative system of teacher-based assessment was introduced. The respective national qualifications agencies initially used algorithms to attempt to standardise results based on the teacher-assessed grades provided by schools. This resulted in lower grades, notably for learners at state schools, larger schools and those schools which did not have a history of high attainment. This led to a public outcry. The use of algorithms was subsequently abandoned, and, following moderation of the grades for these assessments, grades then rose above levels seen in typical years.

26. Despite increases in performance levels, there is ample evidence of a range of other impacts, both positive and negative, affecting students academically (related to the formal curriculum, testing and assessment) as well as personally and socially (relating to developmental milestones, social skills and interactions, mental health and wellbeing).

27. The majority of learners suffered negative impacts from the restrictions imposed by the pandemic, but the burden of these impacts did not fall equally on all. Those starting school, those at key points of transition, such as from primary to secondary school, or due to take national exam qualifications and planning to move on from school to further or higher education or training, all saw specific negative impacts. In addition, specific groups of students were affected more: including those from some minority ethnic backgrounds, those with special needs and those already being educated at home before the pandemic. As was the case prior to the pandemic, poverty continued to act as the single most important determinant of experiences and outcomes and where it combined with other factors, negative impacts were often exacerbated.

28. Some but not all learners with special needs qualified as vulnerable learners and were allowed to attend school in person during the pandemic, but very few were able to do so for a wide range of reasons. Remote learning was hard for many learners with special educational needs who relied on differentiated materials and specialist equipment or support which was not available to them at home and were more likely to face digital exclusion. Some children (for example, many autistic learners) benefitted from learning at home and some parents have chosen to keep home schooling their child as a result. Attendance rates for learners with special needs have still not fully recovered since the pandemic ended, nor have waiting times for specialist support and identification of needs. This has had a significant impact on affected children and their families. The pandemic widened educational inequalities

for learners with special needs overall, especially among those with more severe and complex needs and very young learners with special needs.

Post-pandemic and longer-term impacts on children's learning

29. Internationally, it is recognised that the need to reduce virus transmission was paramount, but this was in tension with the need to maintain education and social support for children as learners. There is consensus that the emergency school closures triggered by the pandemic have had a severely detrimental effect on learning and attainment. PISA (Programme of International Student Assessment) country-level data indicates that the longer schools were closed, the greater the impacts on learning.

30. There is evidence that pre-existing inequalities were exacerbated by the pandemic and have continued to have impact, for example, for boys, children living in poorer socio-economic circumstances, and those with special needs. Learning losses are likely to have long-term effects for individual children and significant long-term impact on widening inequalities in UK society.

31. Since 2022, children's educational attainment in England has shown signs of recovery from the disruptions caused by the Covid-19 pandemic; but not for all children. Those who were already most likely to disengage or under-achieve in school are now even more likely to do so. While caution is necessary in drawing comparisons with grades awarded during the pandemic, attainment statistics indicate overall decreases post-pandemic in Northern Ireland, Scotland and Wales. Some studies indicate a closing of the 'Covid-19 gap' (the difference between average scores of learners' post and pre-pandemic) but there is as yet no comprehensive research that would allow assessment of this across the UK.

32. The four jurisdictions measure and report the poverty-related attainment gap differently. Therefore, data is not directly comparable, but it is known that the attainment gap between children experiencing poverty and their peers has widened across the UK since pre-pandemic, pointing to an increase in inequality overall.

33. There are also concerns about the long-term effects on socio-emotional learning and opportunities to practise life skills, and mental health and wellbeing: young people reported increased anxiety and mental health difficulties, which may have long-lasting effects on learning and engagement.

34. Across the UK, school attendance was negatively impacted by the pandemic. In England, for example, school attendance rates across primary, secondary and special schools are now lower than pre-pandemic, and the proportion of learners who have been 'persistently absent' (missed 10% or more of possible sessions, or 19 days over the course of a year/ one day a fortnight) or 'severely absent' (missed 50% or more of possible sessions) has doubled. There are local area differences, but attendance rates remain consistently lower for learners eligible for Free School Meals (a common proxy indicator of poverty), those with special needs and some minority ethnic groups. There are differences in how attendance is recorded across the UK, which makes direct comparison invalid, but it is clear that absence, and particularly persistent and severe absence, represents a serious issue, and one that will require direct attention and support to remedy.

35. A separate but equally significant challenge for education is the number of children missing from education altogether. The number of children missing education has been rising since the end of the pandemic. This is a much more prominent issue in England, where it seems that it is easier for learners struggling to maintain a connection with school to 'fall through the cracks' than in the other jurisdictions.

36. There has been a rise in elective home education (EHE) since the pandemic in England and Wales. Home education is much less prevalent in Northern Ireland and Scotland. Families report that their decision is often a result of negative perceptions of school, including lack of special needs provision, bullying, and dissatisfaction with the curriculum. Data on elective home education is, again, collated differently across the four jurisdictions and current figures are likely to be unreliable. While home schooling may be an appropriate route for some children, concerns have long been raised about the lost opportunities for social learning and the potential for hidden neglect and abuse.

37. The most common challenges reported by schools now relate to children's wellbeing/behaviour, staff workload relating to pupil wellbeing/behaviour, difficulties in obtaining external support for learners who need it, and wider concerns about high absence levels. Schools with higher proportions of children in receipt of free school meals, and/or with special needs are more likely to have higher rates of mental health and wellbeing-related needs.

38. Although it is not yet possible to accurately predict the duration or severity of these many impacts on and in learning, evidence from a range of sources, both UK and international, points to the need to understand, assess and evaluate impacts as

thoroughly and comprehensively as possible at this point, so that educational resources, interventions and mitigations can have the best chance of helping recovery.

39. In summary, children's learning was interrupted, disrupted and deeply impacted by the pandemic and the trauma, turmoil and uncertainty it created. Educational attainment has declined since the pandemic, globally and within the UK. Poverty and inequality underpin and exacerbate many of the challenges faced. Impacts of the pandemic have not fallen equally on all and evidence suggests that there have been devastating impacts on many who were already marginalised in education. There is also evidence that pre-existing inequalities exacerbated by the pandemic have continued to exert a negative impact, for example, on boys, children living in poorer socio-economic circumstances, and those with special needs. Impacts on children who were in transition years and exam years were significant. Continued research is needed to understand these impacts from the perspectives of children as learners themselves. Caution is needed in predicting longer-term trajectories, but it is vital that the detrimental effects children currently face are recognised in full.

Recommendations

40. Recommendations for action must focus on understanding and mitigating the emerging impacts of the disruption to learning caused by Covid-19, school engagement, attainment, attendance rates, behaviour and relationships in school. Lessons must be learned not only about decisions taken during the pandemic itself, but also about the scope, breadth and effectiveness of mitigations now being put in place in schools to address the aftermath. If the UK is to recover from the pandemic and be prepared for a future crisis of similar magnitude, priority must now be given to, a) a comprehensive plan for schooling in the event of future pandemics, which prioritises routine, structure, resilience, inclusion and equity; b) direct investment in front-line education; c) an evidence-based approach to decision-making, harmonised across the UK, and; d) commitment to increased and long-term investment in longitudinal research to provide a sound basis for evidence-based decision-making. Finally, it is crucial to recognise that no plan will be effective unless and until the voices, experience and expertise of children and their families are integral to this process.

Introduction

41. This report considers and makes recommendations about the impact of the Covid-19 pandemic on children's education in England, Northern Ireland, Scotland and Wales. It first sets out an overview of the structures of children's education in the four jurisdictions of the UK. It then outlines the pivot to emergency remote learning in March 2020 and subsequent developments of this provision over the course of the pandemic. It considers the impacts on all learners, including those with special needs and from a diverse range of ethnic and socio-economic backgrounds. It includes an examination of education policy associated with the pandemic and it looks at the impact of those decisions on children, and wider and long-term impacts in relation to learning and achievement. It reviews levels of academic attainment across the UK during the pandemic and contextualises this within discussion of broader international patterns and trends. Much of the evidence in this report comes from England, as it has a larger body of research than the other jurisdictions, but in reviewing studies and analysis undertaken elsewhere in the UK, the commonalities were usually found to be greater than the dissimilarities.

Chapter 1: The pre-pandemic educational contexts in the UK

Summary: Pre-pandemic educational contexts in the UK

This chapter of the report explains the trends around children's educational attainment before the pandemic. It first provides a high-level overview of structures of children's education throughout the UK. It indicates where responsibility sits in each of the four jurisdictions for education policy and delivery of education. From there, it moves on to outline overall trends in attainment within the international and the UK contexts. It then discusses the relationship between inequity and attainment; a key consideration in any account of attainment, both before and since the pandemic. This section also sets out information about the larger contexts of education before 2020, including the extent of the digital divide prior to the pandemic. It then offers a brief discussion of school attendance rates prior to the pandemic, a topic to which this report returns in detail later. Finally, it notes other key aspects of the context within which schools were seeking to raise attainment in the years leading up to the pandemic, including the deepening levels of concern within the teaching profession about, , teacher shortages and under-resourcing, and the effects of these issues on efforts to raise attainment.

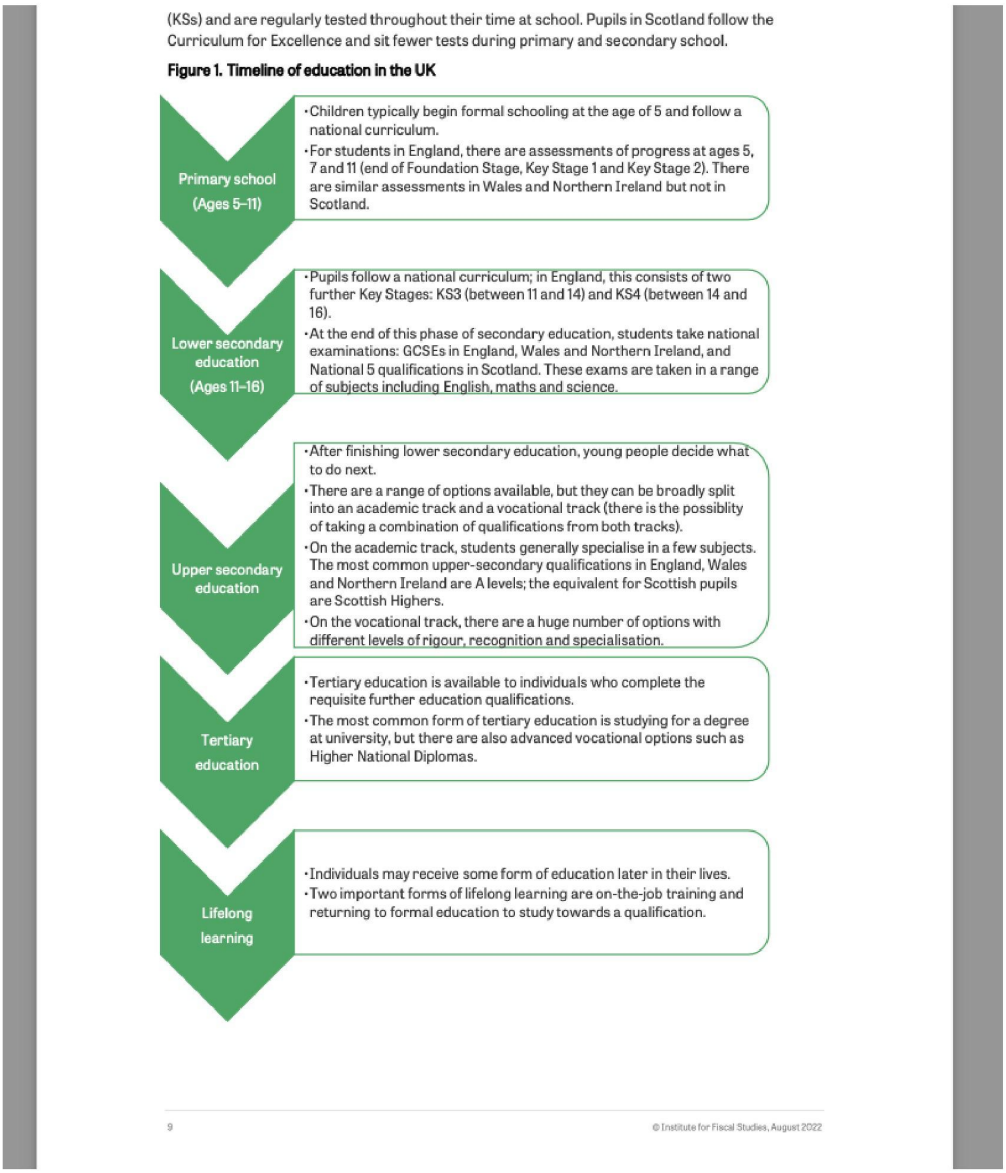
The report mainly, not exclusively, focuses on the arrangements for learning and attainment up to and including the official school leaving age of 16. Reference is also made to the more diverse educational landscape of post-16 pathways, qualifications and institutions, but more particularly where this gives insight into Covid-related impacts on transitions and onwards destinations.

1.1 Overview of structures of children's education throughout the UK

Overview of structures of education throughout UK

42. In the UK, children must be in full-time education starting at around five, until at least the age of 16, when they sit national assessments. The curriculum and assessment type varies between UK jurisdictions, but in all cases, the curriculum is progressively narrowed as children progress through education, and post-16, children are required to specialise in a small number of subjects, either academic or vocational.

Figure 1: Timeline of education in the UK



(KSs) and are regularly tested throughout their time at school. Pupils in Scotland follow the Curriculum for Excellence and sit fewer tests during primary and secondary school.

Figure 1. Timeline of education in the UK

9 © Institute for Fiscal Studies, August 2022

Source: (Farquharson, McNally and Tahir, 2022a, p. 10)

43. Despite the commonalities noted above, there is wide variation in education systems across the UK. In Northern Ireland, Scotland and Wales, education systems are devolved. This means that the Scottish Parliament, the Senedd (the Welsh Parliament) and the Northern Ireland Assembly can make their own education policy and funding decisions. All education funding is devolved to each jurisdiction, and delivered annually through block grants from the UK government, which are calculated based on population, using the Barnett formula (Ministry of Housing, Communities and Local Government *et al.*, 2013; Cheung and Institute for

Government, 2020; Keep, 2024). Although changes to Westminster departments' budgets partly determine changes to the funds available as part of the block grants, devolved administrations can decide how to spend the block funding, so it can be spent on any service that is devolved.

44. Although there were differences in education systems between the jurisdictions before devolution, especially between Scotland and the rest of the UK, educational policy and practice across the UK has diverged further since devolution in 1999. In England, education or training is compulsory until the age of 18. In Northern Ireland, students must attend school until the end of the school year in which they turn 16. In Scotland and Wales, education is compulsory until the age of 15 or 16 (depending on when a student's birthday falls). England's diversified, strongly marketised education system, emphasis on parental choice, and policy commitment to 'academisation', with increased autonomy for academies, now contrasts strongly with the rest of the UK (Power, 2016; Sibieta and Jerrim, 2021; McCluskey, Duffy, *et al.*, 2024). It should be noted that, although the term 'academy' is still used in some school names in parts of Northern Ireland, Scotland and Wales, this usage is historical and not synonymous with the policy development of 'academisation' unique to England's education sector.

England

45. In England, successive reforms have led to a widespread diversification of school types, particularly post age 11 (Ball, 2021). Around 5% of learners in England still attend selective state-maintained grammar schools (Long, Maisuria and Danechi, 2023), and there is a wide range of other types of schools, such as community schools (which are sometimes called local authority maintained schools - they are not influenced by business or religious groups and follow the national curriculum) and voluntary schools, which are often faith based. In 2019, 32% of state-funded primary schools and 75% of state-funded secondary schools were academies or free schools, which are run by not-for-profit trusts and operate independently of the local authority (Department for Education, 2020i). Headteachers in academies have autonomy to decide on staff recruitment, curriculum, timetables, and school holidays. Schools can be selective in up to 10% of their learner intake. That said, they do not generally refuse to admit children, although they have the right to do so if a child has been permanently excluded twice or more, with the caveat that they have a legal duty to admit children with Education, Health and Care Plans (EHCP). Excludees are more likely to have an EHCP than other learners. Around 7% of learners in England

attend private schools; the highest proportion in the UK. A range of special schools exist (approx. 1914 in addition to 140 post-16 educational needs colleges), which, like mainstream schools and pupil referral units (approx. 392), are funded and governed in a range of ways (Power *et al.*, 2024a). In England, children must stay in some form of full-time or part-time education or training until they are 18.

Northern Ireland

46. The school system in Northern Ireland is complex, reflecting the complex history of the jurisdiction. There are four main types of schools: almost half of all learners (47%) attend maintained schools, which are owned and managed by the Catholic Church; almost half (45%) attend controlled schools, which are owned and managed by the Education Authority and have representation from the Protestant Churches on their boards; a further 8% attend Grant Maintained [religiously] Integrated schools, which are owned by Trusts and managed by their Boards of Governors (Department of Education, Northern Ireland. NISRA, 2022). The Education Authority is also responsible for Irish Medium education. Around 2% of children at pre-primary, primary and post-primary stages attend Irish medium schools. All these schools receive public funding (Power *et al.*, 2024b).

47. Across these school types, a competitive, selective system of grammar and secondary schools remains; almost one third of secondary schools are classified as 'grammar schools' (although it is worth noting that these appear to be less academically selective than their counterparts in England) (Department of Education, Northern Ireland. NISRA, 2022). Only around 1% of learners in Northern Ireland attend private schools (Green, 2024). Of the 39 'special schools' and 27 EOTAS ('education otherwise than at school') centres providing education for learners who have been expelled or disengaged from school), almost all are state funded. All but one of the special schools is managed by the Education Authority, the arm's length body that implements policy and provision on behalf of the Department of Education, Northern Ireland.

Scotland

48. Although Scotland devolved from Westminster in 1999, it already had its own long-established education system, which was governed independently from the UK government. The Scottish Government is responsible for education policy, and local authorities are responsible for ensuring that statutory requirements are met and that they are diligent in taking forward nationally agreed policies and guidelines, as well

as spending. Since 2016, local authorities and schools have also received targeted funding aiming to achieve equity in educational outcomes (Scottish Government, 2024b).

49. Scotland has no selective state school admissions and although Roman Catholic secondary schools exist, the vast majority (85%) are non-denominational. In 2019, 4% of learners in Scotland attended private schools (Scottish Council of Independent Schools, 2019). Scotland's approach to education is explicitly rights based and needs-led, underpinned by principles set out within its Curriculum for Excellence and Getting It Right For Every Child (GIRFEC), the national approach to improving wellbeing outcomes for children and young people. The majority of the 110 special schools are state funded and local authority run, and nearly half of mainstream secondary schools have an 'integrated special unit' or 'enhanced nurture base' to support children with additional support needs in a mainstream setting. There is no Scottish equivalent to the pupil referral unit system.

Wales

50. Historically, education structures in England and Wales have been largely shared (Sibieta and Jerrim, 2021). Since parliamentary devolution in 1999, however, education in Wales has diverged from England, purposefully retaining the strong role of local authorities, rejecting the diversification prevalent in England, and introducing a broader curriculum that more closely aligns with Scotland and Northern Ireland than England (Power, 2016). Like Scotland, there are no selective schools or academies in Wales. Around 15% of learners attend Roman Catholic or Church schools, and 24% attend Welsh Medium schools, both of which are state funded. Around 2% of learners attend private schools (Welsh Government, 2021c). There are 39 special schools and 22 Pupil Referral Units in Wales catering for a range of needs. There are also mainstream schools with support units attached (Power *et al.*, 2024b).

1.2. Factors that contribute to children's ability to learn and/or achieve at school

51. Learning and achievement are important because success in school impacts on outcomes over the life course; on employment and earnings, health and wellbeing, personal relationships, involvement in crime and civic participation. A range of factors contribute to children's ability to learn and/or achieve at school. These arise at different levels: national, neighbourhood, family-based, school-based or individual to

the child. In considering these factors it is important to acknowledge that some are enduring in nature, while others are dynamic and more open to change over time. Some factors impact on all children, some impact more on certain individuals and groups. Some factors in combination can have profound effects on learning and it is well established that deficits that appear in early childhood often widen over the years that follow. Many factors are beyond the control of the child or young person. More detail on this is given below.

The UK context

52. Education is resourced as a public service in the UK. The UK education budget is higher per pupil than the Organisation for Economic Co-operation and Development (OECD) average at primary, secondary and tertiary levels (OECD, 2023). However, overall education spending (capital and per pupil budgets) across the UK fell by over 15% in real terms between 2010-11 and 2019-20, connected to wider public sector funding cuts. This resulted in a return to 2005-2006 funding levels overall (Farquharson, McNally and Tahir, 2022b), and has led to concerns about poor building maintenance, infrastructure (including digital), a narrowing of the curriculum, increasing class sizes, problems with teacher and headteacher recruitment and retention, and support for children with special needs.

School-based factors

53. Schools that are well resourced financially, in good repair, have high-quality, ethical school leadership and management, and a stable, well-qualified staff team that is knowledgeable, skilled and confident in their pedagogy, inclusive, offering a broad and balanced curriculum, can all ensure a positive learning climate for children (Day, Sammons and Gorgen, 2014; Quin, 2017). When any one of these key features is missing, learning and achievement can be affected. Children learn better in schools where they feel safe and feel 'claimed' by their school. Where there is bullying, victimisation or violence, achievement levels decline (Kutsyuruba, Klinger and Hussain, 2015). In line with the evidence on the negative impacts of poverty (discussed below), schools with a high proportion of pupils eligible for free school meals are also likely to have lower attainment levels overall (Institute of Health Equity and Felicity Porritt, 2017; Gorard and Siddiqui, 2019). Schools that prioritise social and emotional learning also see improved achievement overall, but particularly in reading and maths; the impacts on science attainment are less clear (Corcoran *et al.*, 2018).

Family-based factors

54. Children's learning is strongly influenced by family circumstances and experiences. Evidence shows that financial precarity and hardship, including food insecurity, have severe impact on children's cognitive, educational and behavioural outcomes (Goodman, Gregg and Washbrook, 2011; Early *et al.*, 2020; Department for Education, 2024c). In the most recent Programme for International Student Assessment (PISA) exercise, children in families with the lowest income levels gained the lowest scores, whilst children in families with the highest income levels gained the highest scores in the UK (Burns, Leitch and Hughes, 2015; Ingram *et al.*, 2023a; OECD, 2023; Scottish Government, 2023a). This pattern is not unique to the UK and mirrors the persistence of this disparity internationally (Schleicher, 2020).

55. Risks of poor outcomes increase for children who live in poor housing, in families where there are health difficulties or experience of trauma or violence (Fry *et al.*, 2018), where parents have low functional literacy or where parent-child relationships are insecure. Risks of experiencing poverty are much higher for families led by lone parents (still almost always women) and among families with a disabled member, so it is unsurprising that the issues arising from precarity, such as poor housing, tend to be greater for these families (Schmuecker *et al.*, 2022). Looked-after children also continue to have poorer educational outcomes than others (Sebba *et al.*, 2015). The factors affecting children for whom English is an additional language are complex and nuanced. One study (Humphrey *et al.*, 2013) indicated that schools with higher proportions of children with English as an Additional Language (EAL) see a positive impact on attainment. There seems to be little research into the detail of this, though analysis of learners with EAL using data from the National Pupil Database in England reveals that, although children with EAL have lower attainment as they enter school, their achievement levels increase over the school years and by age 16 are in line with other pupil groups (Strand, Malmberg and Hall, 2015). These figures must be read with caution as there is wide variation across different groups of EAL learners depending on other factors, such their level of English proficiency, the age at which they arrive in the UK school system, their first language, and their prior educational and life experiences (Hutchinson, 2018).

56. Outcomes are better where there is access to good-quality childcare, parents have higher educational attainment themselves, where behaviour boundaries at home are clear and consistent, there are clear bedtime routines, children are involved in active play, arts and craft activities outside school and where they are read to by their care

givers and read for enjoyment (Mian, 2016; Norman and Davies, 2024). Although it is important to recognise that children living in poverty are not a homogenous group, and many do succeed in school, most research evidence indicates that protective factors, such as those outlined above, have relatively low impact once socio-economic factors are taken into account (Harland *et al.*, 2024). This reinforces once again the burden of poverty on children as learners.

57. Parental engagement with children's learning also impacts positively on attainment and cognitive skills (Del-Bono *et al.*, 2016; Mian, 2016). Levels of engagement generally align with parents' own educational experiences. While many more young people than in the past now grow up in families educated to degree level, it is still the case that 30% of children (down from 33% in 2014) come from families where the highest qualification is GCSE or below (Social Mobility Commission, 2024).

58. Discussion of parental engagement has often focused on a need to raise parental aspirations but Carter-Wall and Whitfield's synthesis of research on families and poverty for the Joseph Rowntree Foundation (Carter-Wall and Whitfield, 2012) calls attention to "*questionable assumptions about lower aspirations among poorer children and their parents*" (Carter-Wall and Whitfield, 2012, p. 1). Other research (Goodman, Gregg and Washbrook, 2011) reveals that the causal direction between aspirations and outcomes can vary. They note that "*25% of the attainment gap between rich and poor children at GCSE level could be closed if policy were able to even out differences in teenagers' attitudes, aspirations and behaviours were evened out*" (p.58). Their work indicates that rather than adopt a deficit view of parents, policy success is likely to be built on school-based interventions that include parental involvement and engagement.

Neighbourhood effects

59. Children living in disadvantaged neighbourhoods are likely to have poorer learning and achievements as well as poorer psychological wellbeing (Astell-Burt *et al.*, 2012; Jonsson, Vartanova and Södergren, 2018). Safer neighbourhoods, with low crime levels contribute to young people's positive sense of wellbeing (Patalay and Fitzsimons, 2016), which is often associated with an ability to learn and achieve. Children whose mothers feel their neighbourhood is safe, and who often see their friends outside school are known to have fewer behavioural issues and do better in school (Jones, Gutman and Platt, 2013). It is also well known that strong school engagement can act as a buffer against neighbourhood effects. There are particular

issues to consider in this regard within Northern Ireland, in view of the political challenges associated with the legacy of The Troubles (1968-1998).

Individual factors

60. Individual factors including sex, sexuality, gender, age, special needs, health including mental health, attendance, behaviour and relationships in school, both with peers and adults, all interact with learning progress and achievement. These aspects are often interwoven with school-based or family or neighbourhood factors, such as those detailed above. Effects start from the earliest days in school and continue throughout education. Evidence indicates, for example, that raised stress and anxiety of mothers in pregnancy can lead to poorer cognitive development and relationships for their children (Delagneau *et al.*, 2023). The benefits of access to high-quality early childhood education and care, including pre-school are well-established and may help to reduce the likelihood of a child later being identified as having special needs (Anders *et al.*, 2011). Often second only to socio-economic status, gender continues to be a key determinant of learning outcomes. Internationally, analysis of PISA test results (Organisation for Economic Co-operation and Development (OECD), 2024) indicates that boys still achieve a higher level at maths and girls do better at reading. These differences may derive from gendered socio-cultural norms and/or through intergenerational transmission of expectations (Early *et al.*, 2020). It has long been recognised that special educational needs and the inclusivity (or non-inclusivity) of educational provision also impact children's learning and attainment. Although the impacts vary according to the specific need or disability, a recent large-scale analysis (Daniel, 2025) of reading, writing and maths, confirmed that these impacts still persist, and children with special needs continue to perform less well than their peers, despite longstanding policy efforts. Individual factors and school-related factors related to special needs are examined in greater detail in Chapter 4.

61. In summary, then, a range of factors contribute to children's capacity to learn and achieve in school. These relate to larger socio-political issues, such as the increasing pressures on national education budgets in a time of austerity, or the long-term effects of the conflict in Northern Ireland, but they also include school-based factors such as curriculum, pedagogy (methods and practice of teaching), assessment systems, the quality of school leadership, demographics of the local school population, resourcing to support learners with special needs and teacher recruitment and retention. Local neighbourhood safety, family factors and individual factors are also key. A large and well-respected body of research suggests that where factors

combine, impacts are greater. Furthermore, research strongly suggests that where any of these factors, including special needs, combine with poverty, there is a layering of disadvantage and the barriers to learning and achievement increase substantially.

1.3. Overall trends in children's educational attainment before the pandemic

62. Trends in attainment discussed below draw on international comparison data from the Programme for International Assessment and from national-level qualifications usually taken by young people aged 14 to 16 years old in the UK. PISA evaluates 15-year-olds' abilities in reading, mathematics, and science. Reliance on PISA has been questioned over the years on the grounds of its methodology, its potential cultural bias and lack of attention to the arts, languages and creative subjects. There has also been concern that pressure to show success in PISA can lead national policymakers to focus on areas that can show quick improvement rather than deep change. However, although it has its critics, it is one of the few international tests in which all four jurisdictions participate. It can, if treated with caution, therefore offer a useful benchmark of changes over time within the UK and with comparator countries globally. Other useful measures at national level in the UK include GCSEs in England, Northern Ireland, and Wales, and the National exams in Scotland.

63. However, comparisons between the four jurisdictions are problematic, given a) the varying availability of relevant datasets; b) the divergence of the English and Welsh education systems since devolution; c) the historically different curriculum structures and systems of assessment in Scotland; and d) the historically distinctive system in Northern Ireland (Sibieta, 2019).

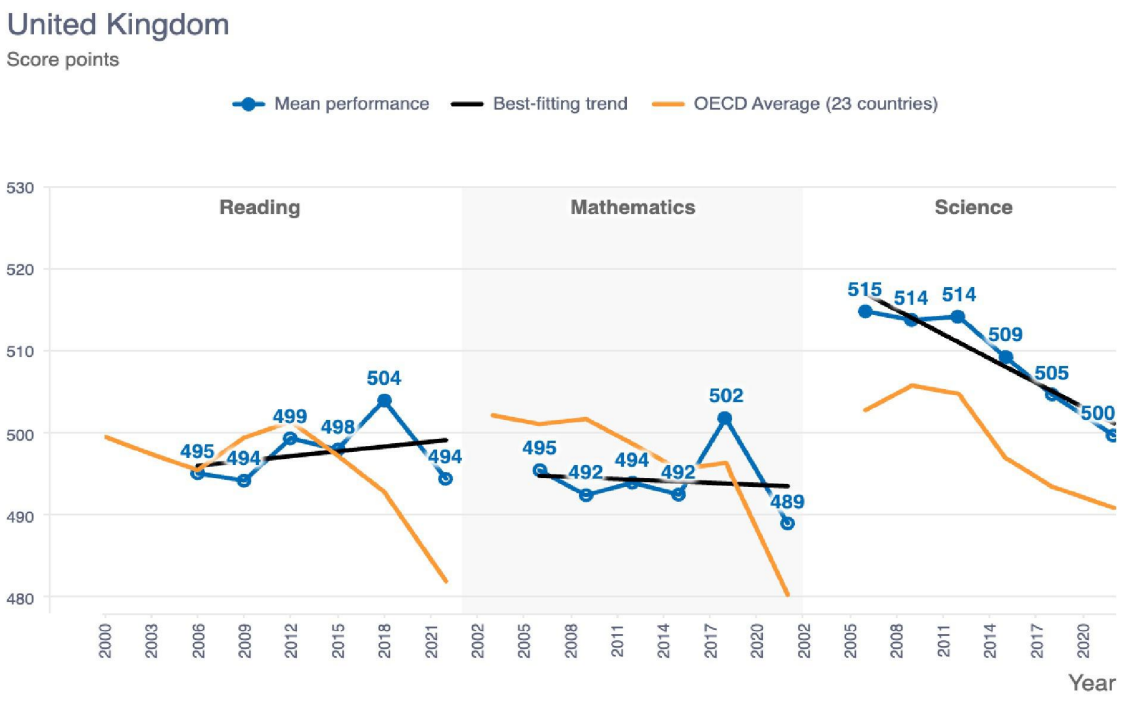
64. With these words of caution notwithstanding, it is clear that attainment levels in the UK before the pandemic were strong compared with other OECD countries. Results from the last PISA exercise undertaken before the pandemic were published in December 2019 and at this point, the UK ranked second among major European nations, behind Poland and ahead of Germany in third place. That said, closer examination of the detail reveals that, while reading and maths scores were showing improvement and were well above the OECD average in the 20 years up to the pandemic, UK reading scores declined steadily over this same time period.

65. In terms of comparisons across the UK, England had higher PISA scores in mathematics and science than Scotland, Northern Ireland and Wales. England's PISA score in reading was similar to Scotland and Northern Ireland, and higher than

Wales. Wales had the lowest PISA score in reading of the UK countries but had a similar score to Scotland and Northern Ireland in mathematics and science. England's PISA score in mathematics was above the OECD average in PISA 2018, while Scotland, Northern Ireland and Wales had a similar score to the OECD average. England, Northern Ireland and Scotland were above the OECD average in reading, but Wales remained below that average (OECD, 2019b).

66. In terms of changes over time, England's performance in maths was higher in PISA 2018 than in all previous assessments. In Wales, performance in maths was higher than in PISA 2012 and 2009, bringing it into line with the OCED average. Scotland and Northern Ireland's performance in maths in PISA 2018 was similar to their performance in PISA 2009, 2012 and 2015. Apart from Scotland having a lower score in PISA 2015, all UK countries had a similar reading score across the assessments. Scotland and Northern Ireland's scores in science in PISA 2018 were lower than in PISA 2012, while England and Wales had a similar score when comparing these two assessments. In Table 1 below, further detail on PISA results across the UK is given, providing some context for discussion of differential impacts of the pandemic discussed in Chapter 3 of the report.

Table 1: Overall PISA scores for the UK and the OECD average



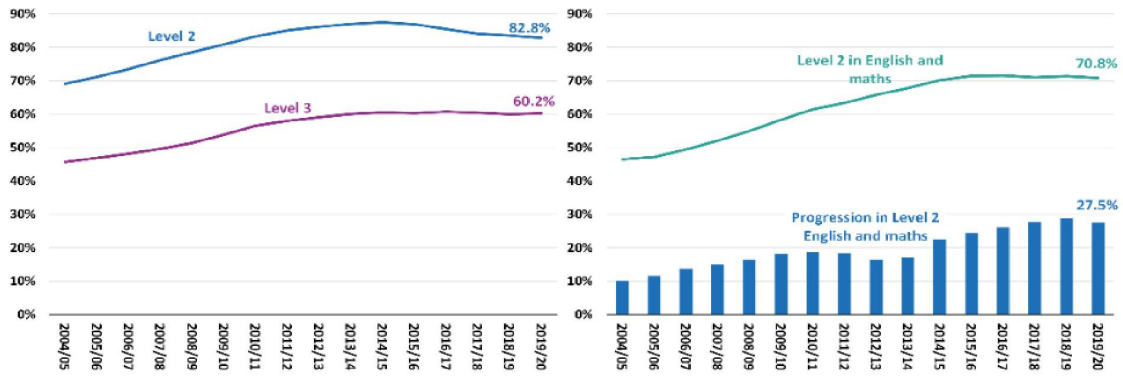
Source: OECD, PISA (2023) Database, Tables I.B1.5.4, I.B1.5.5 and I.B1.5.6.

67. Farqhuarson, McNally and Tahir's report on educational inequalities (2022b) uses PISA data to highlight a concern about stagnation in progress, noting that in most other OECD countries, the reading and maths skills are stronger now among young people than among those in middle-age (55 to 65-year-olds), leaving England ranked 25th out of 32 countries in terms of reading skills among young people aged 16 to 24.

68. Turning to national measures of attainment within the UK, schools had seen some improvements in rates of exam passes in the decade leading up to the pandemic. The GCSE (England, Northern Ireland, Wales) and National exam (Scotland), 'Level 2', which is equivalent to at least five GCSEs at A* to C, is referred to here as it provides a commonly used and helpful benchmark for analysis.

Table 2: Attainment levels in England, 2003/04- 2019/20

Level 2 and Level 3 attainment at 19, 2003/04-2019/20 (left). Level 2 in English and maths: attainment at 19 and progression between 16 and 19, 2004/05-2019/20 (right)



Footnotes

1. Level 2 and 3 attainment at 19 figure refers to the whole 19 year old population.
2. English and maths figures relate to those educated in the state-sector at age 15.
3. Figures in table images have been rounded.

Hide 1 footnote

Source: (Department for Education, 2019a)

69. Table 2 above shows the changes in attainment levels in England prior to the pandemic. Broadly, attainment had been rising since 2005, but stagnation was evident with declines in some areas. These patterns were similar across the UK, but given the introduction of a new Office for Qualifications and Exam Regulations (Ofqual) in 2021, as well as other changes to curriculum and vocational qualifications in England, the introduction of a new curriculum in Scotland and new learner performance measures in Wales, detailed comparisons over time and across jurisdictions are problematic.

Trends relating to inequalities

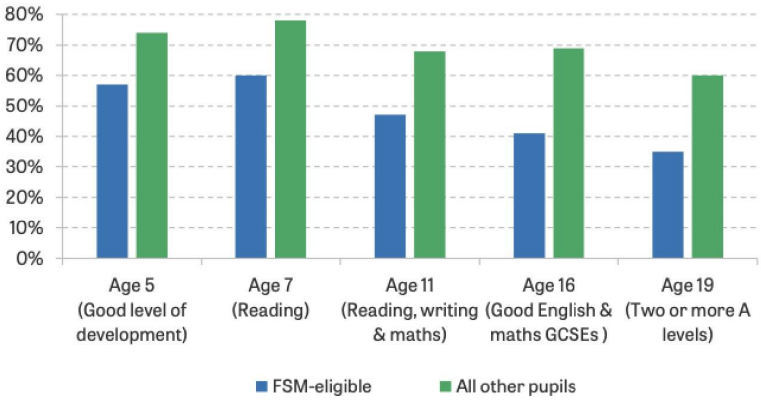
70. The rises in attainment levels over time were generally welcomed but at the same time, it was apparent that trends relating to inequalities in learning and attainment were often much more resistant to change. Inequalities in education arise in relation to a number of different issues, including socio-economic status, gender and sexuality, special needs and/or disabilities, including health or mental health challenges, exposure to domestic violence or abuse, minority ethnic status, asylum or refugee experience, whether a child is 'looked after' by the state, or has experienced trauma or loss. These trends in inequalities are also shaped at macro, meso and micro levels; by international events, national policy, local authority priorities, neighbourhood factors, the ethos of the school itself, the family environment and the individual characteristics of the child.

71. There is strong evidence from national statistics and from empirical research that the single most significant factor in perpetuating educational inequality continues to be poverty (Robertson and McHardy, 2021). It is important to note therefore that the attainment gap between the poorest and wealthiest young people narrowed between 2010 and 2020, though this improvement now seems to have slowed (Equality and Human Rights Commission, 2023b). Other work (Von Stumm, Cave and Wakeling, 2022) has demonstrated that family socio-economic status continues to predict children's attainment levels and that this has remained unchanged over the last century, despite successive government efforts to address the problem. Impacts are tangible and concrete. Although attainment in England, for example, has been rising over time, children living with poverty, still do less than well. Free school meals entitlement (FSME) is often used as a proxy measure for poverty in education. Farquharson, McNally and Tahir note that learners living with poverty:

> "*are still around 27 percentage points less likely to earn good GCSEs than less disadvantaged peers… Learners who were not eligible for free school meals are around three times as likely as their more disadvantaged peers to achieve above the expected level at age 11 and at GCSE. They were also three times more likely to attend one of the most selective higher education institutions*" (Farquharson, McNally and Tahir, 2022b, p. 2).

72. The figure below illustrates the disparity in attainment between children eligible for free school meals and their better off peers. The gap is evident by age 5 and widens as children move through their school years, particularly during primary school (Goodman, Gregg and Washbrook, 2011).

Figure 2: Attainment gaps between learners eligible and not eligible for free school meals at different stages of the education system in England, 2019



Note: Data are based on pupils recorded in mainstream state-funded schools in England. A good level of development at age 5 refers to a pupil achieving at least the expected level in the early learning goals (ELGs) within the three prime areas of learning and within literacy and numeracy. Age 7 results refer to reaching the expected level in Key Stage 1 English reading. Age 11 results refer to reaching the expected level in all of the Key Stage 2 reading and maths tests and writing teacher assessment. Age 16 results refer to pupils who achieved grades 4–9 in both English and maths GCSEs. Age 19 results refer to achieving two or more A levels (or equivalent) by the age of 19.

Source: Age 5 statistics are based on table 1 of 'Early years foundation state profile results: 2018 to 2019'. Age 7 statistics are based on table N10 of 'Phonics screening check and key stage 1 assessments: England 2019'. Age 11 statistics are based on figure 5 in Department for Education, 'National curriculum assessments: key stage 2, 2019 (revised)'. GCSE statistics are from 'Characteristics summary' table in Department for Education, 'Key stage 4 performance, 2019 (revised)'. Level 3 attainment statistics are based on table 3 in Department for Education, 'Level 2 and 3 attainment by young people aged 19 in 2019'.

Source: (Farquharson, McNally and Tahir, 2022b, p. 42).

73. For families who just miss out on free school meals, there were also negative impacts, with only around 40% achieving good GCSEs in comparison with 70% of young people from the most affluent families (Farquharson, McNally and Tahir, 2022b).

74. Persistent inequalities were also evident in the attainment gap between girls and boys, pre-pandemic. Girls continued to outperform boys, with the gap constant over time (Equality and Human Rights Commission, 2023a, 2023b). Boys were also much more likely to be excluded from school for indiscipline. School exclusion has known serious negative consequences for, for example family relationships, individual attainment, future employment and career prospects, mental health outcomes, involvement in crime, both as offender and victim (McCluskey *et al.*, 2019).

75. Attainment of young people with special needs improved in the ten years before the pandemic (Equality and Human Rights Commission, 2023a, 2023b). Some groups with special needs and/or disabilities, such as dyslexia, saw strong levels of improvement. For others, there remained a substantial attainment gap, for example,

between children who were 'looked-after' (ie in the care of the local authority) and those who were not. There was a gender dimension again here, so that, for example, girls with special needs and/or disabilities had higher levels of attainment than boys in listening, talking, reading and writing in early primary school years in the years leading up to the pandemic. A fuller discussion of support for learners with special needs is offered in Chapter 4.

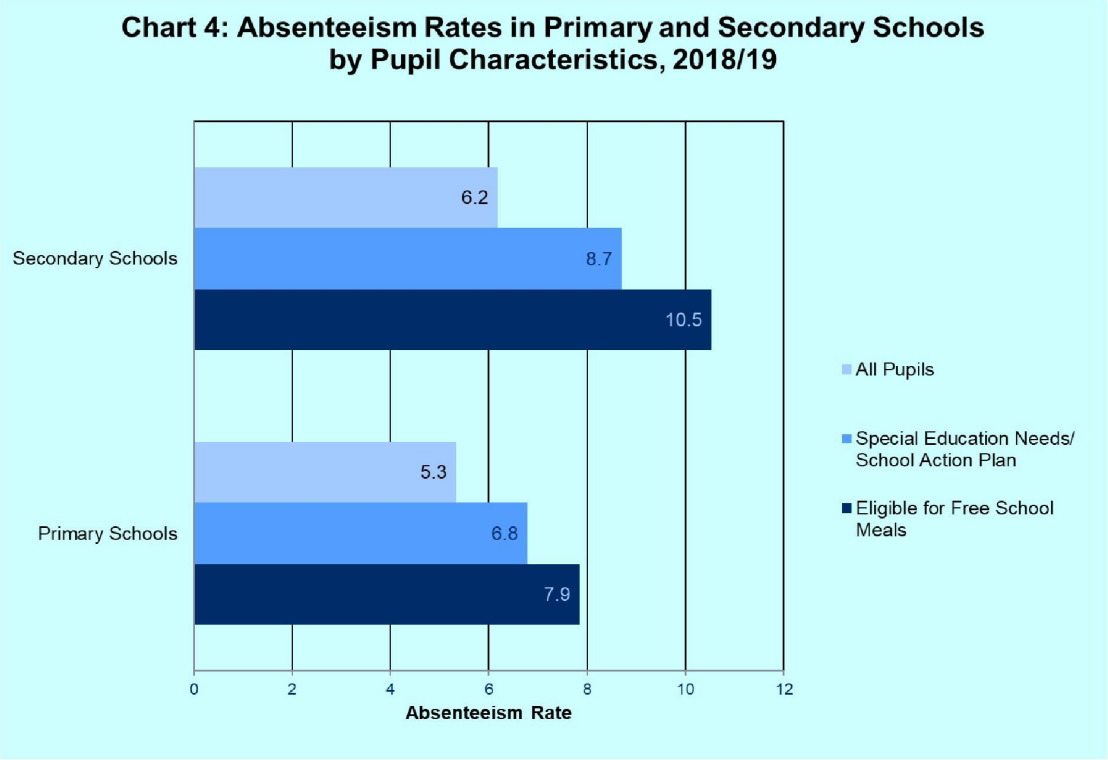
76. For care-experienced young people, attainment rates have traditionally been very low in comparison with young people who have not spent time in the care of the local authority. As data was not collated systematically in the past across the UK, data is limited and cross-comparisons invalid (and noted as such in official national statistics publications). From the data that is available, it is possible to say, however, that the attainment gap was narrowing, though still substantial, across all four jurisdictions, prior to the pandemic (Department for Education, 2020i; Scottish Government, 2020e; Department of Health Northern Ireland, 2021; Welsh Government, 2021c).

77. Trends in inequalities by ethnicity were more variable. Attainment rates for young people by age 16 from Gypsy/Roma, Traveller of Irish Heritage, Black Caribbean, and White and Black Caribbean, Other Black Backgrounds, Pakistani, Any Other White Backgrounds, and Any Other Ethnic Backgrounds, were all lower than White British young people. The attainment gap was often greatest for learners from Gypsy/Roma and Traveller communities. At the same time, learners from Chinese and Indian communities were generally achieving more highly than their White British counterparts (Hutchinson, 2018). More generally, children from nearly every minority ethnic background often did less well in school in the early years but went on to make faster progress, so that by age 19, they were more likely than their white British counterparts to have achieved A levels or equivalent. It is important to note there have long been variations within minority ethnic groups, so that for example, Black African learners had higher than average rates of attainment (Demie, 2021). While attainment across African, Black, Caribbean groups of young people improved at a faster rate than all other ethnic groups in the decade before the pandemic (Equality and Human Rights Commission, 2023b), it was still the lowest of any major ethnic group. Despite these variations and higher than average levels of achievement among some minority ethnic groups, it was still the case that all young people from minority ethnic backgrounds often faced racially motivated bullying and had greater difficulty in finding training and employment opportunities upon leaving school (Farquharson, McNally and Tahir, 2022b; Equality and Human Rights Commission, 2023b, 2023a). These trends were broadly similar across the UK.

Trends in attendance levels prior to the pandemic

78. Prior to the pandemic, school attendance rates were stable and generally high. Overall attendance rates were similar in each of the four UK jurisdictions; typically around 95% for state-funded primary and secondary schools in England, 94% in Northern Ireland, 93% in Scotland, 94% in Wales (Department for Education, 2020i; Department of Education, Northern Ireland, 2020c; Scottish Government, 2020f; Welsh Government, 2020f). The figure below shows the absence rates in Wales in 2018/19 by way of example. The rates of absence in the figure in Figure 3 represent the percentage of school sessions missed. This includes all absences; authorised and unauthorised.

Figure 3: Absenteeism rates in primary and secondary schools in Wales by pupil characteristics, 2018/2019



Source: (Welsh Government, 2020f), Data summary tables, Chart 4.

79. National statistics (Department for Education, 2020i; Department of Education, Northern Ireland, 2020c; Scottish Government, 2020f; Welsh Government, 2020f) confirm that primary schools had higher attendance rates overall. Most absences were short term and higher in winter, often related to outbreaks of flu, norovirus or

other short-term illness. Persistent absence (defined as students missing 10% or more of school) was relatively low but increasing slowly among learners from poorer families and among older learners - those aged 14 years and above. There was no single cause of this increase, but it aligned with wider concerns noted earlier about the cumulative impacts of deepening austerity and growing challenges associated with mental health and wellbeing (Lennon, 2021; Robertson and McHardy, 2021).

80. Where there were patterns of absence, recorded reasons related to health issues, special educational needs and associated impacts on individual children and their families. There was also a growing concern about young people's mental health and wellbeing in this pre-pandemic period, often associated with school absence and disciplinary exclusion (John *et al.*, 2022). The highly respected Avon Longitudinal Study of Parents and Children (ALSPAC), for example, found that by the age of 8 years old, 19% of children with ADHD and 31% of those with conduct disorder had been excluded from school compared with 1.9% and 2.8% of those without ADHD or conduct disorder, respectively (John *et al.*, 2022, p. 31). Ford *et al.* (2018) had also recently reported findings from their secondary analysis of the British Child and Adolescent Mental Health Surveys 2004 and 2007, which revealed that psychiatric symptoms were a predictor of school exclusion. The Children's Commissioner in England at that time, Anne Longfield, had started an Annual Briefing in 2017 as a result of these concerns, noting that the top priority brought to her attention by young people was mental health (Lennon, 2021).

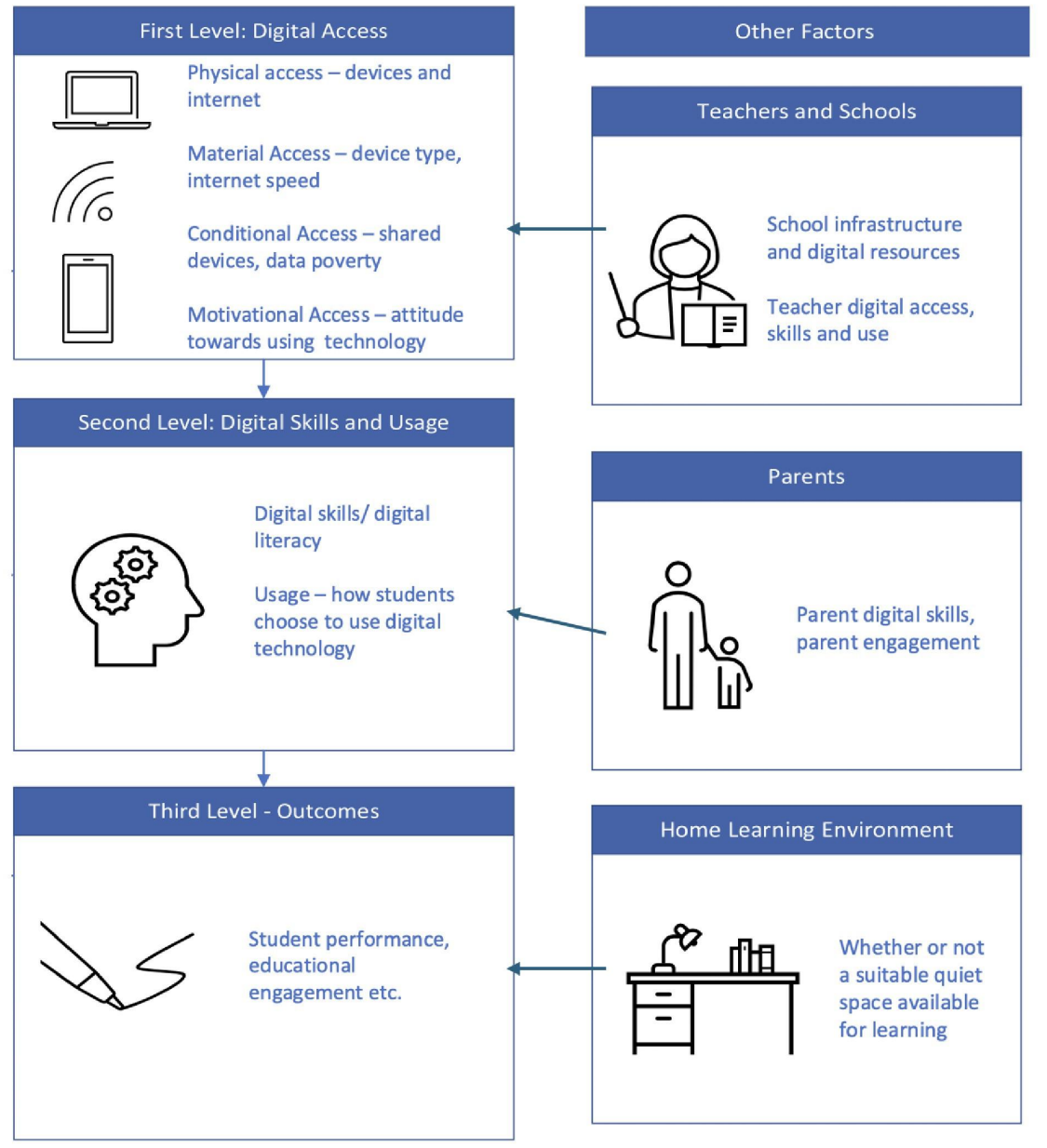
81. Different jurisdictions took different approaches to attendance issues. The Scottish Government's approach to reducing absence focused on support for families and early intervention with children and young people. In England, Northern Ireland and Wales, policies also focused on positive interventions and individual action plans, but relied, in addition, on use of penalties such as fines for parents, where absence was unauthorised.

1.4. The extent of the digital divide prior to the pandemic

82. The digital divide is commonly understood to refer to the inequalities in levels of access to digital devices and connectivity, and also levels of usage (Van Deursen and Van Dijk, 2014; OECD, 2019b; Van Dijk, 2020). That is, the digital divide is complex and multi-faceted and in relation to children's education includes: the level of digital skills of learners, teachers and parents; sharing access; child and parental engagement; the availability of assistive technology and the accessibility of digital

resources and websites for disabled learners (covered in more depth in Chapter 4); and the quality of the home learning environment (Van Dijk, 2020; T. Coleman, 2021) (see Figure 4 below).

Figure 4: Digital divide levels and related factors



Source: Adapted from Coleman (2021, p. 11).

83. In the UK, it was well known that prior to the pandemic a digital divide existed (Serafino, 2019; Sanders, 2020). The UK Digital Strategy 2017 (Department for

Culture, Media and Sport and Sport, 2017) outlined plans to improve digital infrastructure and digital skills, highlighting the need to continue to address the digital divide. The Department for Education's strategy "Realising the Potential of Technology in Education" (2019b) acknowledged that "*not all education settings benefit from the modern broadband infrastructure needed to capitalise on the use of technology*" (p. 2). The digital divide in Scotland was high on the Scottish Government's agenda (Wilson and Hopkins, 2019). For example, in 2017 they also published a strategy focusing on improving digital infrastructure, particularly in rural areas (Scottish Government, 2017). Similarly in Wales, there was an ongoing focus on improving digital inclusion, with a strategy published in 2016 which aimed to ensure that everyone who wanted internet access would have this opportunity by 2020 (Welsh Government, 2016). Its Learning in Digital Wales grant (Welsh Government, 2016) was one of several initiatives at the time to specifically improve broadband and digital infrastructure for schools (Nominet Trust, 2017; Department for Education, 2019b). In Northern Ireland, specific policy documents aimed at addressing the digital divide were not as clear (RSM Consulting LLP, 2018) but there had been significant expenditure on digital infrastructure as well as programmes to support digital skills (e.g. 'Go ON NI').

84. In the years leading up to the pandemic, various organisations were continuing to raise awareness of the digital divide issue for both adults and children (e.g. Carnegie UK, Good Things Foundation, Nominet). In February 2019, the Learning Foundation and Nominet launched the Digital Access for All taskforce with a particular focus on addressing digital exclusion for children and young people across the UK (Bowyer, 2019).

Physical access to devices, the internet, online teaching and resources

85. Pre-pandemic data provides clear evidence of knowledge of a divide in children's access to devices and the internet. There was unequal access to devices (laptops, desktops, tablets) and reliable internet connections across the UK population, particularly affecting children from lower socio-economic backgrounds (Montacute and Cullinane, 2021; T. Coleman, 2021).

86. In relation to physical access, Ofcom's 'Technology Tracker' data (2020) collected just before the pandemic states that 9% of UK households with children lacked access to a tablet, desktop or laptop (estimated between 1,143,000 and 1,777,000 children). Furthermore, this lack of access disproportionately affected children in lower-earning households (socioeconomic groups DE: semi-skilled & unskilled

manual occupations, unemployed and lowest grade occupations), of whom 21% had no home access to a tablet, laptop or desktop. However, many children in homes with access to devices had to share with a sibling and/or parent. The following data (Table 3) from the nationally representative Understanding Society Covid-19 study were collected a month after the pandemic began but before the roll out of any devices (Benzeval *et al.*, 2020). Notably, fewer than half the children across the UK had access to their own computer, laptop or tablet.

Table 3: Access to computers, laptops and tablets at home in April 2020 (n=3675 parents)

Jurisdiction	% of learners who have own device	% of learners who share device	% of learners with no access to device
All	45	51	4
England	45	51	5
Northern Ireland	47	53	0*
Scotland	47	50	3
Wales	43	48	9

Source: (Benzeval *et al.*, 2020) *Low base size and final value has been rounded.

87. Internet access was also required for access to online learning from home. Internet access can vary in terms of the reliability and quality of connection, and depends on financial resources available to families, as well as geographic location.

88. Immediately prior to the pandemic, 2% of UK households with children had no access to the internet whatsoever (estimated between 227,000 and 559,000 children), with 4% having access via smartphones only (estimated between 473,000 and 913,000 children) (Ofcom, 2020). Again, children in lower-earning households (socioeconomic groups DE: semi-skilled & unskilled manual occupations, unemployed and lowest grade occupations) were disproportionately affected, with 6% having no access to the internet and 9% having access only via a smartphone. Disabled young people aged 16-24 are also less likely than non-disabled young people to be internet users (Serafino, 2019).

89. Regional differences in internet access existed, with Northern Ireland having the highest proportion of non-users in 2018 (14.2%) (Serafino, 2019), although this

long-standing trend of being behind the other three jurisdictions had improved a little by the following year (Serafino, 2019). Drawing on the 2019 Scottish Household Survey, the Educational Institute of Scotland (2020) noted that immediately prior to the pandemic, households in the most deprived areas and children from low-income families had significantly lower internet access (only 82% of households in the 20% most deprived areas, only 65% of families earning less than £10,000 per annum).

Digital skills

90. Before the pandemic, a 'second-level digital divide' concerning digital skills and types of usage of digital media was commonly recognised (Van Deursen and Van Dijk, 2014; T. Coleman, 2021). Physical access to technologies was not considered the main driver of digital inequalities, with digital skills/literacy becoming increasingly important in the extent to which individuals are digitally excluded (Van De Werfhorst, Kessenich and Geven, 2020; T. Coleman, 2021).

91. Global pre-pandemic research highlights a well-established association between socio-economic factors and disparities in the ability to use ICT effectively (skills) for children (among other demographics) (Van De Werfhorst, Kessenich and Geven, 2020). Data from the International Computer and Information Literacy Study showed that children from lower socio-economic backgrounds performed worse on computer and information literacy measures than their wealthier peers (T. Coleman, 2021; Fraillon and Rožman, 2025). While there is less evidence of the precise nature of the divide in children's digital skills in the UK, pre-pandemic UK research similarly suggested that:

> "*children from poorer socio-economic backgrounds tend to have less exposure to digital technologies both at home and at school, and consequently may have less well-developed digital skills*" (T. Coleman, 2021, p. 25).

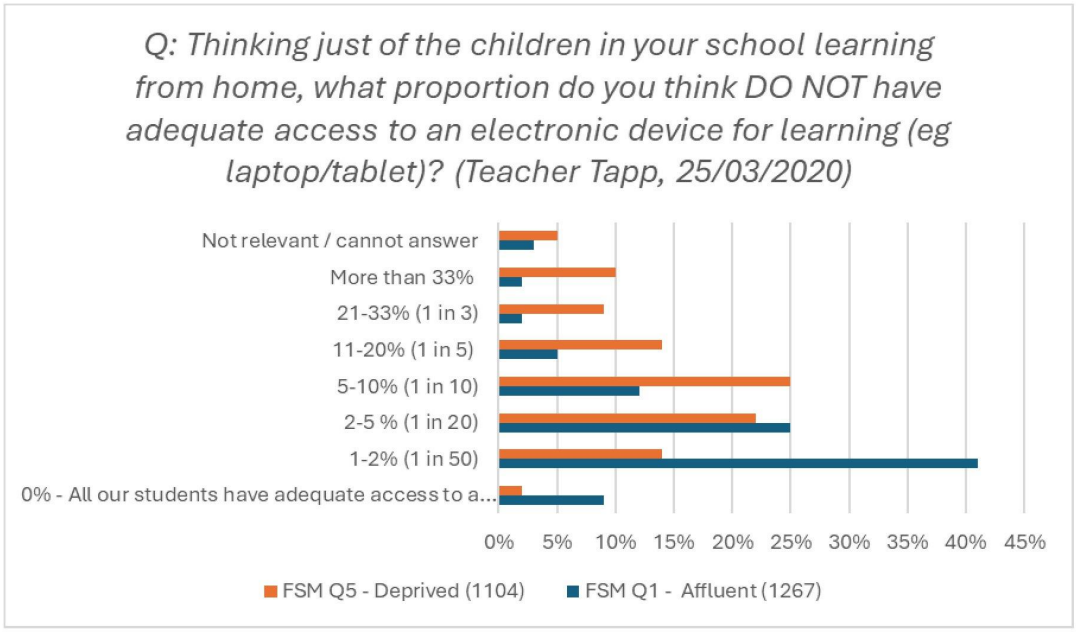
This socio-economic divide in children's digital skills was clearly documented as early as 2008 in the UK, along with further inter-regional differences such as reduced online confidence of children in Northern Ireland compared to the rest of the UK population, and Welsh children being less likely to choose different options to learn about using digital technology (Ofcom, 2008).

Schools' and teachers' awareness of the digital divide

92. There is limited formal pre-pandemic research on the extent of understanding among teachers and educators of the digital divide in the UK. This was likely due to the limited prior engagement in online teaching by mainstream educators before the pandemic (Sharp *et al.*, 2020). The majority of existing UK research on school and teachers' awareness of disparities in children's access to online education was published during the pandemic, as this was when these issues became critical (Ofcom, 2020; T. Coleman, 2021; Montacute and Cullinane, 2021). Nevertheless, the volume of this evidence, and consistency in questions being asked very early into the pandemic surrounding inequalities of access (Cullinane and Montacute, 2020; Cambridge Partnership for Education and EDUCATE, 2021; T. Coleman, 2021) highlights a prior awareness of schools and educators that certain children would not be able to access online education.

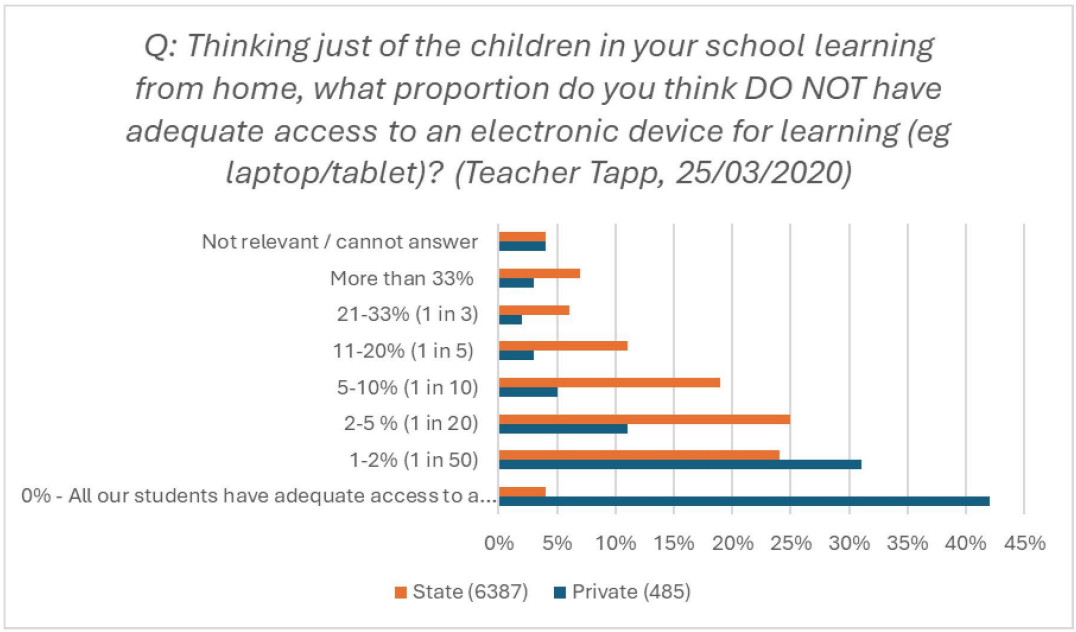
93. Teacher surveys provide the most accurate evidence of schools' and teachers' prior awareness of disparities in children's access to online education. However, it should be noted that such surveys (referred to here and elsewhere in this report) might be subject to non-response bias due to participation being optional although results are typically weighted by participant demographics to account for this issue (ONS, 2021). In a Teacher Tapp survey of 6,877 teachers in England (6387 at state schools, 485 at private schools) one week into lockdown, on 25 March 2020, 7% of teachers thought that a third or more of the children in their school would not have adequate access to an electronic device for learning (for example, a laptop or tablet) (Teacher Tapp, 2020). In relation to socio-economic differences, only 2% of teachers from schools serving the most disadvantaged pupils (20% of state and private schools with the highest levels of learners eligible for Free School Meals (FSM)) thought that all their students had adequate access to a device, compared with 9% of teachers from schools serving the most advantaged pupils (20% of state and private schools with the lowest levels of pupils eligible for FSM) (see Figure 5a). Notably, only 4% of teachers at state schools believed that all their students had adequate access to a device, compared with 42% of teachers at private schools (see Figure 5b).

Figure 5a: Teachers' understanding of learner access to an electronic device for learning a week into lockdown (most 'deprived' vs most 'affluent' as measured by pupil eligibility for Free School Meals)



Source: Teacher Tapp survey of teachers in England, March 26th 2020 (Teacher Tapp, 2020).

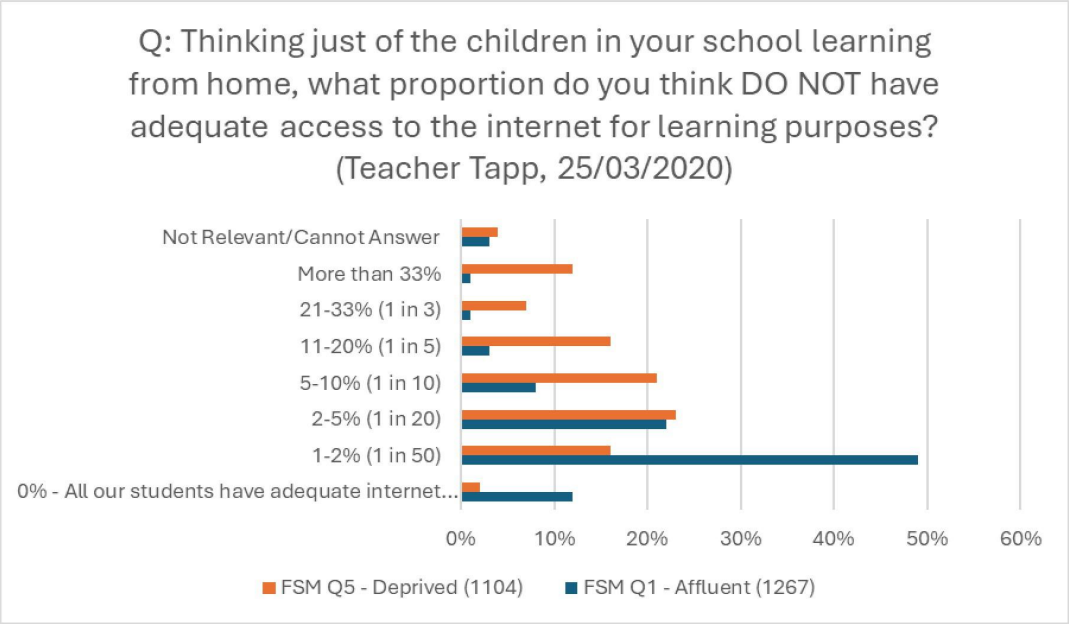
Figure 5b: Teachers' understanding of learner access to an electronic device for learning a week into lockdown (state schools vs private schools)



Source: Teacher Tapp survey of teachers in England, March 26th 2020 (Teacher Tapp, 2020).

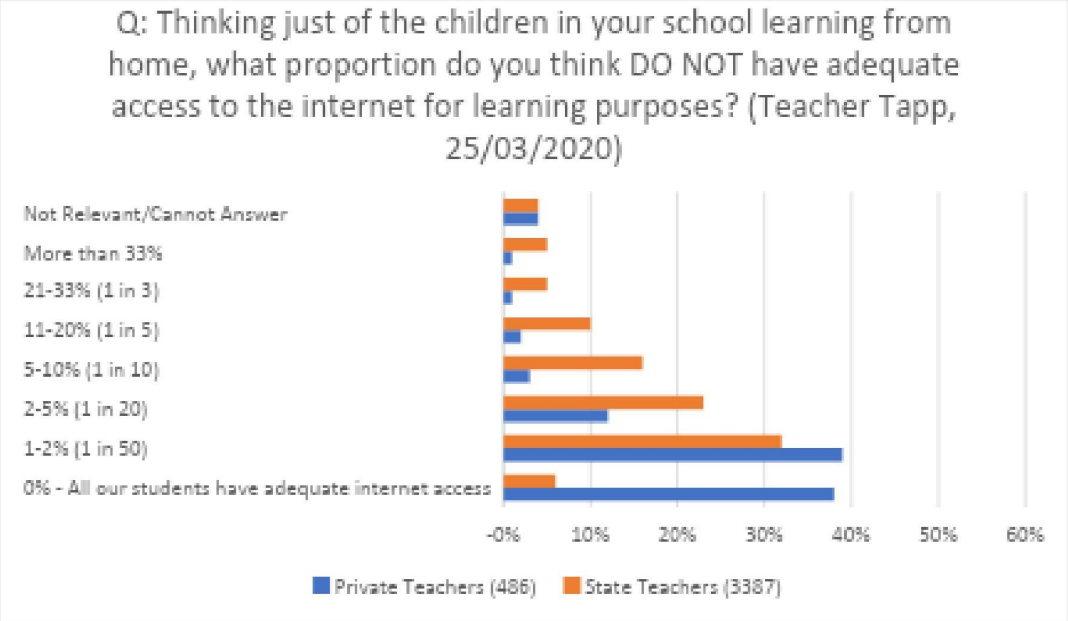
94. A similar picture existed for teachers' reported understanding of student internet access for learning purposes. Of the 6878 responding teachers, only 8% reported that all their learners had adequate internet access, and 5% of teachers reported that more than a third of their class did not (Teacher Tapp, 2020). Socio-economic differences were once again evident, with 12% of teachers from the most deprived schools reporting that more than a third of their class did not have adequate access to the internet for learning purposes, compared to only 1% of teachers from the most affluently populated schools (including private schools) (see Figure 6b). Similarly, 5% of teachers from state-funded schools reported that more than a third of their class did not have adequate internet access, compared to only 1% of private school teachers (see Figure 6b).

Figure 6a: Teachers' understanding of learner internet access for learning a week into lockdown (most 'deprived' vs most 'affluent' schools as measured by pupil eligibility for Free School Meals)



Source: Teacher Tapp survey of teachers in England, March 26th 2020 (Teacher Tapp, 2020).

Figure 6b: Teachers' understanding of learner internet access for learning a week into lockdown (state schools vs private schools)



Source: Teacher Tapp survey of teachers in England, March 26th 2020 (Teacher Tapp, 2020).

1.5. The state of readiness on the part of schools to deliver online education

Trends related to educational uses of technology

95. Trends in uses of technology to support teaching and learning in and out of school prior to the pandemic relate to schools', teachers' and learners' readiness to switch to remote learning.

96. Drawing on data from PISA, Trends in International Mathematics and Science Study (TIMSS) and Progress in International Reading Literacy Study (PIRLS), it was noted that physical access to technology in classrooms was decreasing globally, although remained high (Vincent-Lancrin, S. et al., 2019). A UK-wide British Educational Suppliers Association survey also suggests that teacher and learner classroom access to technology dropped in both primary schools and secondary schools from 2018 to 2020 (Table 4) (Hawkins and Whyley, 2023). This is unsurprising given the fall in overall education spending in the decade before the pandemic noted above (Sibieta, 2021; Farquharson, McNally and Tahir, 2022b).

Table 4: Teacher and learner classroom access to technology

Year	Primary teachers – good device access	Primary learners – good device access	Secondary teachers – good device access	Secondary learners – good device access
2018	79%	55%	73%	79%
2019	77%	50%	56%	66%
2020	69%	28%	49%	40%

Source: adapted from Hawkins & Whyley (2023, pp. 12–13).

97. In contrast, teacher reported usage of technology in classrooms in both primary and secondary schools was increasing across schools in OECD countries, including England, leading to moderate pedagogical innovation (Vincent-Lancrin, S. et al., 2019). For example, the proportion of learners using classroom computers to practise mathematics at least weekly "*increased by 42 percentage points in primary education (to 51%) and by 23 percentage points (to 32%) in secondary education*" from 2007 to 2015 (Vincent-Lancrin, S. et al., 2019, p. 29). Data for Northern Ireland suggests a small decrease in classroom use but it remained relatively high; that is, they were early adopters rather than the use of technology in classrooms in this jurisdiction declining. Prior to the pandemic, global trends driving this increase in uptake of technology across the UK as well as elsewhere included a need to support inclusion and accessibility, teacher shortages, particularly in specialist subject areas, efficiency and reducing workload, the importance of developing pupils' digital skills, as well as an overarching focus on improving attainment (see for example, (Burbules, Fan and Repp, 2020; Vincentini *et al.*, 2022)).

98. Evidence of the impact of classroom technology on learning and attainment prior to the pandemic is mixed and highlights the importance of aspects such as context, alignment with pedagogical goals and what the technology replaces (OECD, 2015, 2020; Lewin *et al.*, 2019; Facer and Selwyn, 2021; UNESCO, 2023). Classroom uses prior to the pandemic varied at all levels, from schools to individual teachers, and depended on factors such as national, regional and local policies, school leadership, classroom access to technology, teachers' confidence and capability (Vincent-Lancrin, S. *et al.*, 2019).

99. Over the last 25 years there has been an increasing interest in the potential of online and blended learning (a combination of online and face-to-face learning) in school education to increase access to learning, both nationally and internationally (Condie and Livingston, 2007; Lewin *et al.*, 2008; Means *et al.*, 2013; Philipsen *et al.*, 2019; Topping *et al.*, 2022). Online learning can be synchronous, with teachers and learners online simultaneously, and thus able to interact in real time (Zeng and Luo, 2024). Alternatively, it can be asynchronous with learners accessing learning materials or interacting with others when they choose, with interactions taking place over a period of time. Asynchronous remote learning practices before the pandemic included uses of digital resources to support homework (e.g. instructional videos, quizzes, subject specific apps) (Walker *et al.*, 2022). Similarly, around two thirds of headteachers (from a sample of 65) in England reported that online learning was in place prior to the pandemic, although not necessarily embedded across the whole school and often adopted to support homework (Floyd *et al.*, 2025). Unsurprisingly, there was very limited prior experience of live (synchronous) remote teaching reported in England (Walker *et al.*, 2022). Of the four jurisdictions, as noted below, the provision of online and blended learning in Scotland was more established, partly due to the challenges of providing education across areas of sparse population (Wilson and Hopkins, 2019).

Digital education policies and national infrastructure

100. Digital education policies and national infrastructure are important to consider in this report, because they relate to each jurisdiction's readiness to pivot to online learning provision when the pandemic began. There were key differences in the policy landscape and support structures, such as the national learning platforms in place. A learning platform can be broadly defined as

> *"an integrated set of interactive online services that provide teachers, learners, parents and others involved in education with information, tools and resources to support and enhance educational delivery and management"* (Jewitt *et al.*, 2010a, p. 4).

101. Technology in education in England was a policy priority from 1997 to 2010 under the New Labour government and received significant investment (Selwyn, 2008; Bacsich and Doody, 2023). A digital strategy was published in 2005 with schools advised to invest in a learning platform (Department for Education and Skills, 2005). As one of the austerity measures introduced by the coalition government in 2010, national policy support and investment in educational technology diminished (Selwyn, 2011).

However, renewed policy interest from 2018 led to a new digital strategy for technology in education (Department for Education, 2019b). The strategy aimed to reduce teacher workload and improve teachers' digital skills, assessment and (inclusive) teaching. Alongside this, the EdTech Demonstrator Programme was also launched in 2019 to disseminate good practice to schools and colleges in England, although the first demonstrator schools and colleges were not announced prior to the pandemic.

102. A digital strategy for education in Northern Ireland was published in 1997 (Department of Education Northern Ireland, 1997), focusing on infrastructure and professional development, building on continued investment in access to technology through Classroom 2000 (C2k) with regional learning platforms introduced in 2000 (Passey, 2024). The strategy was revised and updated in 2004 shifting the focus to practice (Department of Education Northern Ireland, 2004; Marshall and Anderson, 2008). Children and teachers were given access to MySchool and Fronter from 2012/13, replacing previous C2k learning platforms (Passey, 2024). Developments continued, including an increasing interest in developing learners' digital skills and opportunities for teachers to engage in professional development (Passey, 2024).

103. Scotland launched a digital strategy for education in 2016 (Scottish Government, 2016) structured around four key areas: teachers' digital skills; access to technology; curriculum and assessment; and leadership. This strategy built on a strong trajectory of developments in digital learning in Scotland. SCHOLAR, an online programme to support independent learning, was launched in 1999 and used to supplement classroom instruction for secondary pupils aged 16-18 through a blended learning approach (Condie and Livingston, 2007). Glow, a national digital learning platform providing guidance, resources, tools and services for all schools in Scotland, was launched in 2007 (Clery, 2009). Over the years Glow has supported developments such as e-portfolios, professional learning communities and video conferencing (Gabriel *et al.*, 2022). A national virtual school, e-Sgoil, was established in 2016 using Glow as its platform to support subject choice, specialist supply cover and online access for students not able to attend school, underpinned by a desire for equity in education (Scottish Government, 2016; e-Sgoil, 2021). The digital strategy emphasised the importance of e-Sgoil offering live video conferencing to support online distance learning, particularly in the Western Isles due to the large numbers of rural schools. The Scottish Government continued to place importance on the digital strategy and the role of Glow as a means of improving outcomes for children through its policymaking on school improvement (Scottish Government, 2019).

104. Although not publishing a specific strategy to drive digital teaching and learning, the Welsh Government commissioned a 'strategic review' in 2012 (Hayward, 2012), which led to the Learning in Digital Wales programme, originally a collection of discrete projects (ICF Consulting Services Limited, 2016). This programme had two workstreams, one focusing on improving digital learning and the other on improving infrastructure, including providing high speed connectivity to all schools. In relation to digital learning, the Hwb National Digital Content Repository was launched in 2014 alongside the Hwb+ national learning platform for maintained schools. The independent evaluation of the Hwb programme in 2016 concluded that initial impact had been positive but that more needed to be done to support increased uptake and the embedding of digital learning in Welsh schools (ICF Consulting Services Limited, 2016). Investment and support continued, with an additional £50 million announced in July 2019 to support further digital infrastructure developments in Welsh schools (Welsh Government, 2019). The review of the curriculum in Wales (Donaldson, 2015) led to an increased focus on digital literacy, for both teachers and learners, and the publication of a Digital Competence Framework guidance in 2018 (Welsh Government, 2018). Digital competence is a mandatory cross-curricular skill in the new Curriculum for Wales (alongside literacy and numeracy); it was originally planned to be rolled out from 2021 but was delayed until 2022.

105. Over the last two decades each jurisdiction has supported the development of educational technology policy, national and school infrastructure, and digital learning, in different ways. Notably, Northern Ireland, Scotland and Wales all provided centralised infrastructure and support services, alongside national learning platforms (Bacsich and Doody, 2023).

Institutional support for online learning

106. As outlined above, the national provision of technology services and resources in Northern Ireland, Scotland and Wales, including national digital learning platforms, meant that these jurisdictions were arguably better-placed than England to support schools and teachers as the pandemic began (Bacsich and Doody, 2023). For example, the digital infrastructure in schools in Northern Ireland was well-established before the pandemic struck (RSM, 2018; Anderson, 2023; Passey, 2024). This is attributed to the jurisdiction having:

> "*a single managed ICT (information and communications technology) service in all (grant-aided) schools… providing the structural capacity to facilitate online learning*" (Taggart *et al.*, 2024, p. 313).

107. School leadership is a key enabler of engaging teachers in innovative classroom practice (Scrimshaw, 2004) and requires an effective digital strategy to support school-wide implementation (Baxter, Floyd and Jewitt, 2023). However, schools did not typically have whole-school digital strategies in place prior to the pandemic (Baxter, Floyd and Jewitt, 2023).

108. Learning platforms have been used in primary and secondary schools for decades to support teaching and learning both within and outside classrooms (e.g. Jewitt *et al.*, 2010b). Schools that were already regularly using a learning platform prior to the pandemic would have found switching to remote learning easier than those that were not.

109. The 2018 PISA results (OECD, 2020) suggest variation across jurisdictions and across state and private secondary schools in relation to learning platform infrastructure. In the UK, around two-thirds of learners (65.9%; OECD average was 54%) were attending secondary schools whose headteachers reported an effective learning platform being in place, although advantaged schools (highest quartile when ranked by socio-economic profile of its learners) were more likely to have this provision than disadvantaged schools (lowest quartile when ranked by socio-economic profile of its learners) (Ikeda, 2020; OECD, 2020). Notably, a larger proportion of secondary school learners in England and Scotland (67% each) were at schools that had an effective learning platform compared to Northern Ireland and Wales (59% each) (OECD, 2020). These data are interesting given the differences in policy and national infrastructure across the four jurisdictions discussed above.

110. Unsurprisingly, learning platform infrastructure in primary schools was less prevalent than in secondary schools, although again there was variation across the jurisdictions. Data from the 2019 Trends in International Mathematics and Science Study (TIMSS) suggests that 100% of learners in Northern Ireland already had a learning platform in place prior to the pandemic compared to only 42% of learners in England (Burge *et al.*, 2020). A survey of 590 primary school headteachers and 202 secondary school headteachers in England (CooperGibson Research, 2021) also suggests that fewer primary schools than secondary schools had sufficient infrastructure to support remote online learning at the start of the pandemic.

111. Classroom access to technology also reflects levels of school digital maturity. The 2019 TIMSS data suggests that teachers and learners in primary schools in England (8 of 139 were private schools) had limited access to computers in the classroom (32% of learners in mathematics, 36% of learners in science) suggesting low digital

maturity when compared to other high-performing countries such as Singapore and South Korea (Galvis and McLean, 2020). In Northern Ireland, classroom access was much higher (69% of learners in mathematics, 80% of learners in science) (Burge *et al.*, 2020). Again, learners in schools serving the most advantaged had greater access than learners in schools serving the most disadvantaged. For example, 69% of learners had access to computers in science lessons in affluent schools compared to 35% of learners in schools serving the most disadvantaged (as measured by school socioeconomic composition; sample included private schools) (Galvis and McLean, 2020).

112. There is very little evidence of differences in digital infrastructure between schools in the state sector and schools in the private sector prior to the pandemic. However, it is estimated that private schools in 2020 had far greater financial resources than state schools, around three times more, although there was variation within the private sector itself (Green, 2020). Moreover, evidence from research conducted during the first lockdown confirms that many private schools were better prepared than state schools to support online remote learning (see below) (Cullinane and Montacute, 2020; Elliot-Major, Eyles and Machin, 2020; Green, 2020).

Teacher and learner readiness for remote online learning

113. Teacher and learner readiness and capability are key enablers of effective remote online education (Stringer and Keys, 2021; T. Coleman, 2021). It is important for learners to have both digital skills and self-regulated learning skills to benefit most from online learning (Johnson *et al.*, 2023).

114. Secondary school headteachers were asked for their views on their teachers' digital capability in the 2018 PISA study. Across all OECD countries, 65% of headteachers strongly agreed or agreed that their teachers had the necessary technical and pedagogical skills to integrate technology in their teaching. This compares to 74% in England, 63% in Northern Ireland, 69% in Scotland and 60% in Wales (OECD, 2020). That is, teachers' digital capability in England and Scotland was above average.

115. Data on classroom use of technology also provides evidence of teacher and learner digital experience and capability. Schleicher (Schleicher, 2020) reported that 40% of secondary teachers in England 'frequently' or 'always' let learners use technology for schoolwork, compared to an average across OECD countries of 53%. Of primary learners in Northern Ireland, 31% used computers in the classroom at least weekly in maths lessons and 19% in science lessons, compared with 15% of primary learners

in both maths and science classrooms in England (Burge *et al.*, 2020). Primary learners in England who were at more affluently populated schools (8 of 139 were private schools) had more access to classroom computers and reported greater use of computers in the classroom for mathematics and science than in disadvantaged schools (Galvis and McLean, 2020). Prior to the pandemic, analysis of logins to the Welsh Hwb learning platform by learners (which offers a partial insight into usage) also varied according to socioeconomic status, with schools in the most deprived areas engaged in lower levels of usage (Sandu and Taylor, 2025).

116. It has long been argued that teacher professional development in technology use is an important enabler of effective integration in pedagogical practices to support teaching and learning (e.g. (Hennessy and London, 2013)). Engagement in professional development prior to the pandemic provides useful information about teachers' readiness. Uptake of professional development in technology use was relatively low across the UK prior to the pandemic. Fewer than one in five primary teachers (17.5%) in England in 2019 had participated in professional development for integrating technology into maths education in the previous two years (Galvis and McLean, 2020); this low uptake was similar across affluent and disadvantaged schools. Data in relation to science education were not reliable due to low response rates. Participation in professional development was much higher in Northern Ireland, with 37% of primary learners having teachers who had participated in relation to maths education and 25% in relation to science education (Burge *et al.*, 2020). More broadly, 56% of teachers in OECD countries received formal training in digital technologies for teaching but only 43% felt it had properly prepared them (Schleicher, 2022).

117. Therefore, it is unsurprising that significant numbers of teachers across the UK felt that they had professional development needs in relation to integrating technology into teaching and learning. For example, 57% of secondary learners in England had teachers who expressed a need for further professional development in mathematics and 55% in science (Richardson *et al.*, 2020). Nearly three-quarters of primary learners in Northern Ireland (71% in maths and 74% in science) were taught by teachers who reported needing future professional development on integrating technology into mathematics and science lessons (Burge *et al.*, 2020). Globally, teachers report a high level of need for professional development to support the integration of technology in their teaching (Schleicher, 2022).

118. Given relatively low levels of teacher readiness and capability in the years before the pandemic, it is not surprising that many teachers across the UK felt unprepared to support remote online learning specifically, and many identified the need for further training (Montacute, 2020; Cambridge Partnership for Education and EDUCATE, 2021; Waters-Davies *et al.*, 2022). Teachers from the most disadvantaged schools (which includes private schools) felt the least prepared. Furthermore, teachers in the private sector felt better prepared than teachers in the state sector (Table 5). This data collected by Teacher Tapp from 6,375 teachers in England in early March 2020 on teacher readiness illustrates these differences (Montacute, 2020; Cambridge Partnership for Education and EDUCATE, 2021).

Table 5: Teacher perceptions of their ability to teach remotely

	All schools	Most advantaged (20% with Fewest Free School Meals)	Least advantaged (20% with Most Free School Meals)	State schools	Private schools
Could broadcast a video lesson already or could figure it out	42 %	47%	34%	40%	70%
Could set work remotely via a learning platform	38%	46%	29%	36%	65%
Could set work remotely via email or figure it out	25%	24%	24%	26%	24%
Could accept work remotely via a learning platform	31%	37%	23%	29%	62%
Could accept work remotely via email or figure it out	33%	36%	30%	34%	26%

Source: adapted from (Cambridge Partnership for Education and EDUCATE, 2021).

119. Internationally, a similar picture is evident. For example, an analysis of responses from 574 teachers in the United States of America and 239 teachers in Norway

suggests that the vast majority had no prior experience of teaching online (Gudmundsdottir and Hathaway, 2020). Similarly, only 60% of secondary teachers from 20 countries felt positive about their readiness to teach remotely online (Howard *et al.*, 2021). This figure is likely to be inflated due to the online administration of the survey via social media, which will have reached teachers who are likely to have positive attitudes towards technology already. However, even teachers who were digitally competent prior to the pandemic struggled to switch to remote online learning due to the need to learn how to use new tools and to redesign suitable pedagogical approaches ((Bond, 2020); a synthesis of 89 studies from 70 countries).

Broader contextual factors

120. One of the main issues facing education globally in the decade before the pandemic was the increasing challenge in recruitment and retention of staff in schools (OECD, 2019a). Within the UK, this affected teachers and headteachers across the primary, secondary and special school sectors. Working conditions and workload were often cited as the main reason for staff leaving the profession (Sims and Jerrim, 2020). Numbers of teachers moving from full-time to part-time contracts also increased (Department of Education Northern Ireland, 2018). Shortages were higher in rural/remote areas (Scottish Government, 2020a) and in disadvantaged areas, where rising rates of staff absence often related to stress or workload problems (Sibieta, 2020b). In Wales, recruitment and retention was a particular challenge in Welsh medium and bilingual schools (Ghosh and Worth, 2020). As well as these overarching challenges, there were concerns about shortages of staff in a range of specific subject areas, including computing, modern foreign languages, maths, sciences and technological subjects (Scottish Government, 2020a; Sibieta, 2020b). Concerns were also being raised about the pressure on schools from growing shortages of teachers and support staff (known variously as teaching assistants, classroom assistants, and learning support assistants in different jurisdictions) trained and available to support learners with special needs and/or disabilities (Skipp and Hopwood, 2019)). These issues were at the forefront of issues raised by teachers' unions during this time (see, for example, Educational Institute of Scotland, 2019). Governments across the UK sought to tackle the issue in a number of ways, with a focus on increasing numbers entering initial teacher education and targeted support in shortage subjects, for example, through bursaries, and/or other financial support in the first year of teaching. However, at the point where the UK entered the pandemic, the situation in schools was still deteriorating (Scottish Government, 2020a; Sibieta, 2020b).

1.6 Summary

121. In summary, prior to the pandemic, there were (and continue to be) both differences and commonalities in the education systems of the UK. In Northern Ireland, Scotland and Wales, education systems are devolved; these jurisdictions make their own education policy and funding decisions separately from the Department for Education in Westminster. England's diversified, marketised education system contrasts markedly with the rest of the UK, where local authorities play a stronger role. England has a higher proportion of private schools than the other jurisdictions. Unlike in England and Northern Ireland, there are no selective state schools in Wales and Scotland.

122. There was, overall, a growing number of key issues and challenges facing delivery of education in the years leading up to the pandemic. There were deepening concerns about the UK's international standing in terms of attainment, given that PISA scores had either remained static or declined. In addition, there was a broad concern that while there had been an overall rise in national attainment rates, this masked a marked variability across the four jurisdictions. There were increasing concerns about stubborn and persistent inequalities in experiences and outcomes for children and young people, many of whom also faced disadvantage outside of school.

123. There was evidence pointing towards significant inequalities in both children's access to technology and the broader factors influencing their ability to engage with online teaching and resources. The four jurisdictions differed in the extent to which policymaking and initiatives specifically targeted the digital divide but all clearly recognised the issue. Research undertaken in the earliest weeks of the pandemic, also mirrored this understanding among educators of pre-existing disparities in access to online education.

124. Prior to the pandemic, access to technology in classrooms was decreasing although use was increasing; that is, where technology was available teachers and pupils were using it more regularly. Overall, there was great variability in the use of technology for teaching and learning both between and within schools across the UK. Online learning in school contexts was most commonly used for supporting homework. There was limited experience of providing live remote teaching in schools. Not all schools had sufficient infrastructure in place to deliver online learning at the start of the pandemic, and policymakers were aware of this (Gibbons, 2020c). Private schools were more digitally mature than state schools, meaning that they

were better positioned to pivot to online learning. Similarly, advantaged (or affluent) schools typically had higher levels of digital maturity than disadvantaged schools, and secondary schools typically had higher levels of digital maturity than primary schools. Teacher and learner readiness and capability are key enablers of effective remote online education. Uptake of professional development in technology use was relatively low across the UK prior to the pandemic. Many teachers across the UK felt unprepared to support online remote learning specifically and many identified the need for further training.

125. School leaders were raising urgent questions about public sector funding constraints and the concomitant, cumulative impacts on capital and revenue budgets across the sector. There were increasing difficulties in staff recruitment and retention overall, but especially at senior leadership level. There were teacher shortages in specific areas. There were periods of industrial action, with teachers calling for improved pay, conditions and pension arrangements. There was substantial pre-existing knowledge about technology across the UK, but also evidence of significant inequalities in both children's access to technology and broader factors influencing their ability to engage with online teaching and resources. As the pandemic began, the school system was already in crisis.

Chapter 2. The main changes to the delivery of education during the pandemic

Summary

This chapter of the report outlines the state of readiness on the part of schools to deliver online education to children when the pandemic started. It explains and summarises the main changes to education during the pandemic and reflects on the associated challenges. It looks in detail at remote learning and experiences of learning at home. Finally, it offers an assessment of how the use of face coverings and other non-pharmaceutical interventions affected the delivery of education.

Schools developed their infrastructure, practices and knowledge about digital pedagogy over the course of the pandemic. Similarly, government guidance and support developed over time, though with differences between the four jurisdictions. NPIs, such as school closures, face coverings and reduced social mixing, were understood to be necessary by most and generally welcomed. Some impacts were unforeseen and had unequal effects on the delivery of education. Despite UK-wide policy commitment to ensure in-person attendance for children of keyworkers and those children identified as 'vulnerable', uptake of places was lower than anticipated. Attendance may have been exacerbated by confusion about eligibility as well as concerns about the risks associated with in-person attendance.

Parents across the UK took on increased responsibility for supporting their children's education during school closures. The amount of time parents spent actively helping their child varied considerably, largely due to parents' work status, with more time typically dedicated to primary learners than secondary learners. Notably, the amount of time did not vary by socio-economic background, ethnicity, or parental education level. Many parents found supporting their child's learning challenging and lacked confidence. This was especially the case for parents living with socio-economic disadvantage.

The Covid-19 pandemic significantly exposed and exacerbated the digital divide in the UK. While government initiatives across all four nations aimed to provide devices and internet access to disadvantaged learners, the initial response varied in speed and scale. Persistent disparities remained throughout the pandemic, particularly between learners from different socio-economic backgrounds and between state and private schools.

2.1 The physical attendance of children at school

126. Schools across the UK closed for most learners in late March 2020 (Phase 1). Children were expected to stay at home and engage with remote learning, except for those considered 'vulnerable' (the definition of which varied between, and within, UK nations) and the children of key workers.

127. All four UK countries made provision for vulnerable children and the children of key workers to physically attend school during school closures. Eligibility criteria for attendance varied between, and within, UK nations (Cabinet Office and Department for Education, 2020; Smith *et al.*, 2024) and over time. The ways in which 'vulnerable' and 'key worker' were defined across the four jurisdictions are outlined in Table 6.

2.2 The definition and eligibility of 'vulnerable children'

128. The meaning of the term 'vulnerable' varied across the UK (see table 6). The differences largely reflected differences in wider legislation and guidance about children and families (for example, England makes references to EHCPs and Wales refers to statements of special educational needs), as well as differences in context more generally (for example, Northern Ireland refers to children subject to paramilitary threat). Although these definitions appear to be broadly similar, it is important to note that all four jurisdictions allowed for a degree of discretion and flexibility in relation to who could be considered vulnerable for the purposes of school attendance, which is likely to have meant that in practice, different groups of children were prioritised for in-person attendance across the UK, both between and within jurisdictions.

129. In England, Ofsted highlighted that the 'vulnerable' category included children considered to have special needs and/ or disabilities, but only if they had an EHCP, which potentially excluded over 1.1 million children who had special needs and/ or disabilities (Ofsted, 2021b). Although discretion was technically allowed for schools and local authorities to include children as vulnerable who did not otherwise fit into this category, it is unclear how far families and professionals were aware of the extent and meaning of this discretion, which, in the context of a fast-paced and constantly shifting landscape, may have meant that children not explicitly referenced were less likely to have been prioritised for in-person attendance. It is not possible to draw conclusions about this either from guidance, which can only tell us about the formally stated intention, or from qualitative research, which was severely curtailed during this time.

Table 6: Definitions of 'vulnerability' across the UK during school closures, as at March 2020

Jurisdiction	Definition	Discretion/ flexibility
England	"*Vulnerable children include children who are supported by social care, those with safeguarding and welfare needs, including child in need plans, on child protection plans, 'looked after' children, young carers, disabled children and those with education, health and care (EHC) plans*".	"*We know that schools will also want to support other children facing social difficulties, and we will support headteachers to do so*".
Northern Ireland	"*…those children who are in need of protection, or in need, as defined by the Children (NI) Order 1995: Receiving support from Health & Social Services including family support, child protection and looked after children services;* • *On the Child Protection Register;* • *With statements of special education needs;* • *Accessing Education Otherwise Than At School (EOTAS);* • *Accessing Education Nurture Units;* • *With emerging and diagnosed mental health needs;* • *Who are homeless;*	"*Schools should work in conjunction with parents/carers, the Education Authority (EA) and, where appropriate, social services to identify and assess vulnerable children to determine if their best interests would be met by the school's continued supervised learning*".

	• *Who are young carers;* • *Subject to paramilitary threat;* • *Whose parents have mental health problems;* • *Whose parents have alcohol and drug addictions;* • *Affected by domestic violence*".	
Scotland	"*Children and young people may be vulnerable for a range of reasons including: being on the child protection register; looked after; on the edge of care; being eligible for Free School Meals; having complex additional support needs; being affected by poverty and deprivation…* *This will include:* *children whose names are on the child protection register* *children who are looked after at home or away from home (in foster, kinship care or residential care); and children who are 'on the edge of care' and whose families will be under particular strain during the current crisis*".	"*This is not an exhaustive list of reasons and other groups of children and young people may have increased vulnerability due to closures of early learning centres and schools.* *Those who work directly with children and young people are best placed to identify children and young people who will require support in order to secure their wellbeing, as a result of ELC and school closures.* *Local authorities will know the children and families within their areas who are potentially at risk*". "*Not all of these children will need the additional help that school or ELC can provide during this time, but their lead professional (who may be in school) can advise on that*".

Wales	"*Vulnerable children include those with safeguarding needs and supported by social care, which include children with care and support or support plans, children on the child protection register and looked after children, young carers, disabled children and those with Statements of special educational needs*".	"*The most vulnerable of these should be prioritised.*"

Source: England: (Cabinet Office and Department for Education, 2020).

Northern Ireland: (Department of Education, Northern Ireland, 2020b).

Scotland: (Scottish Government, 2020b).

Wales: (Welsh Government, 2020g).

2.3. The definition and eligibility of 'children of key workers'

130. All four jurisdictions made provision for the children of key workers (sometimes called critical workers) to attend school in-person during closures. At the announcement of the first UK-wide lockdown, all four jurisdictions emphasised that the children of key workers should only attend in-person if they could not be cared for at home safely (see table 7). There were some differences in the ways in which key workers were defined in guidance (for example, England and Wales explicitly included financial services, and Scotland emphasised priority categories rather than employment sectors), but the content of the guidance largely aligned across the UK. In addition, in every jurisdiction there was an emphasis on discretion and flexibility that undoubtedly led to differences in who was considered eligible – and who considered themselves eligible – between and within jurisdictions. Some differences are evident from examining the guidance. Northern Ireland, for example, emphasised that both parents/carers were not required to be key workers but children were eligible only up to Year 10 (age 13-14 years old), whereas in Scotland guidance explicitly stated that only those without another parent/carer at home during the day were eligible. It is highly likely that there were further differences in practice between and within jurisdictions.

Table 7 - Definitions of 'children of key workers' across the UK, March - April 2020

Jurisdiction	Definition [lists are summarised for brevity]	Discretion/ flexibility
England	"*If your work is critical to the COVID-19 response, or you work in one of the critical sectors listed below, and you cannot keep your child safe at home then your children will be prioritised for education provision*". List includes: Health and social care, Education and childcare, Key public services, Local and national government, Food and other necessary goods, Public safety and national security, Transport, Utilities, communication and financial services.	"*Many parents working in these sectors may be able to ensure their child is kept at home. And every child who can be safely cared for at home should be*". "*If workers think they fall within the critical categories above, they should confirm with their employer that, based on their business continuity arrangements, their specific role is necessary for the continuation of this essential public service.*"
Northern Ireland	"*The list is not prescriptive. However, to give some guidance the following outlines the broad categories of what would be defined as a key worker:* *List includes: Health and Social Care, Education and childcare. This includes pre-school and teaching staff, Public safety and national security, Transport, Utilities and Communication, Food and other necessary goods, Other workers essential to delivering key public services; Key national and local government.*"	"*The definition of key worker will be flexible and dependent on the circumstances and requirements over the course of this critical period. There will be flexibility shown on the definition of key workers to ensure all those who need support receive it.*" '*…consider only sending your child to school if there are no other viable arrangements…To be clear, both parents/carers do not have to be key workers.*"

Scotland	"*Whilst decisions are being taken at the local level, we would expect this to include consideration of:* *Category 1 – Health and Care workers directly supporting Covid-19 response, and associated staff; Health and Care workers supporting life threatening emergency work, as well as critical primary and community care provision; Energy suppliers… staff providing childcare/learning for other category 1 staff.* *Category 2 – All other Health and Care workers, and wider public sector workers providing emergency/critical welfare services (for example: fire, police, prisons, social workers), as well as those supporting our Critical National Infrastructure, without whom serious damage to the welfare of the people of Scotland could be caused.* *Category 3 – All workers (private, public or third sector) without whom there could be a significant impact on Scotland…* *We have introduced these categories so that frontline health and social care staff get a place, if they need it, first. Places left will be allocated using local knowledge and in line with the national criteria.*	"*Scottish Government, COSLA and local government partners have agreed that it is vital that decisions about key workers and the childcare places allocated are taken locally.* *Local authorities will make provision for children of key workers in their areas where this is absolutely necessary to ensure that parents/carers with no other option for childcare can continue to work in their role of delivering essential services.* *We need to keep the number of children taking up these places – whether these are in schools or in other settings – to an absolute minimum. The choice of educational setting or childcare may need to take account of special requirements due to the child's health or family needs.* *Only key workers who cannot fulfil their critical functions when they are working remotely from home may qualify for critical childcare provision.* *If it is at all possible for children to be at home, then they should be.*" "*There should be a particular focus on key workers in posts which ensure that essential services can be delivered and cover tasks within the local community which support the vulnerable and aid community resilience.*

	This may be slightly different in each community to allow the country to address local priorities. These local solutions are vital to meet the local needs of our diverse country. *We cannot designate whole workforces or entire groups of staff as key workers. Doing so would undermine the collective effort we all must make to save lives.*"	*This may be slightly different in each community to allow the country to address local priorities.*"
Wales	"*If your work is critical to the COVID-19 response, or if you work in one of the critical sectors listed below, you should make arrangements for your child to be safely cared for at home. If there is no safe alternative, provision should be made in schools or other settings*". List includes: Health and social care, Education and childcare, Key public services, Local and national government, Food and other necessary goods, Public safety and national security, Transport, Utilities, communication and financial services.	"*Every child who can be safely cared for at home should be and only where there is no safe alternative should provision be made in schools or other settings.*" "*If workers think they fall within the critical categories above they should confirm their specific role is necessary for the continuation of this essential public service.*"

Source: England: (Cabinet Office and Department for Education, 2020).

Northern Ireland: (Department of Education, Northern Ireland, 2020b, 2020a).

Scotland: (Scottish Government, 2020d).

Wales: (Welsh Government, 2020g).

2.4. In-person attendance of vulnerable and key worker children

131. In England, most schools individually stayed open for vulnerable or key worker children (Sibieta and Cottell, 2020; Elliot-Major, Eyles and Machin, 2021). In the remaining three jurisdictions, provision for vulnerable or key worker children mainly took the form of local 'hub' schools, whereby eligible children could attend a local school which was not necessarily their usual school.

132. Across all four jurisdictions, a small proportion of children attended school in-person during closures (see Table 8). This proportion increased over time but remained low. During the first round of school closures, it appears that a higher proportion of vulnerable children attended school in England than in the other UK nations, with the lowest attendance rates in Northern Ireland (Sibieta and Cottell, 2020; Elliot-Major, Eyles and Machin, 2021). A national survey of teachers and school leaders from the first lockdown indicated that, in England:

> "*the proportion of vulnerable pupils attending school was around 15 per cent and the proportion of keyworker children was five per cent. The number of vulnerable pupils and the children of keyworkers attending in-school provision, as of 21 May [2020], represents just three per cent of the children that would normally attend school*" (National Foundation for Educational Research, 2020, p. 6).

133. Department for Education statistics for this same day refer to 2% attendance rate (Department for Education, 2020a). Such figures should be viewed cautiously – although they are the best available data in the circumstances, they have necessarily been arrived at by using a narrow definition of 'vulnerable' in each jurisdiction, examples of which are included in Table 6. In reality, defining and measuring vulnerability is complex, messy, highly subjective, and influenced by local and national context (Brown, 2011). In a constantly evolving, emergency situation such as the pandemic, where definitions of vulnerability differed at jurisdictional and local authority level, and also shifted over time, this seems to have become even more challenging, so that it is now very difficult to meaningfully measure and report it (Smith *et al.*, 2024; Porter *et al.*, 2025). In addition, analysis of the proportion of key worker children attending over the pandemic as a whole does not appear to have been published, and if it were, it would be subject to similar caveats. The key message to take from these figures is that take-up was very low across the UK, and although attendance increased in later lockdowns, it remained concerningly low.

Table 8: Physical attendance rates during the first school closures

	April 2020	May 2020	June 2020	Average during lockdown*	Key Notes
Share of institutions open					
England	69%	73%	91%	**71%**	*Includes all state-funded schools, independent and 16-18 providers; figures adjusted for non-response.*
Wales	33%	30%	38%	**34%**	*Includes maintained schools and other community settings; independent schools excluded; raw figures.*
Scotland	18%	20%	35%	**24%**	*Independent and grant-aided schools are excluded; raw figures*
Northern Ireland	26%	30%	31%	**29%**	*Includes all state-funded early years and education settings; raw figures*
Share of pupils attending					
England	1.3%	2.1%	10.4%	**1.7%**	*As above.*
Wales	0.7%	1.1%	1.5%	**1.1%**	*As above.*
Scotland	0.7%	1.1%	1.6%	**1.1%**	*As above.*
Northern Ireland	0.2%	0.4%	0.6%	**0.4%**	*As above.*
Share of vulnerable pupils attending					
England	5.0%	8.4%	18.9%	**6.7%**	*Shown as share of pupils with EHCP or social worker.*
Wales	1.8%	4.2%	6.1%	**4.0%**	*Shown as share of pupils with statement of SEN or social worker.*
Scotland	1.8%	4.7%	8.1%	**4.8%**	*Wider definition of vulnerable pupils. Shown as share of pupils with child plans.*
Northern Ireland	0.8%	1.8%	2.5%	**1.5%**	*Wider definition of vulnerable pupils. Shown as share of pupils with statement of special educational needs.*

Source: (Sibieta and Cottell, 2020).

134. During the second round of UK-wide school closures, attendance rates were higher than during the first closures across the UK: 37% of all learners in England, 25% in Scotland and Wales, and 20% in Northern Ireland (Elliot-Major, Eyles and Machin, 2021; Smith *et al.*, 2024) but beneath the overall headlines, secondary school attendance rates remained lower than for primary schools across the UK throughout the pandemic.

2.5. Reasons for significant numbers of vulnerable children not attending school during the pandemic

135. Many learners considered vulnerable were not able to attend schools even when they were eligible to, for a variety of reasons discussed below. In addition, some who were eligible to attend reported not being offered a place (Ofsted, 2021b).

136. During the pandemic, research and policy understanding of why so few vulnerable children attended school was limited. This was partly because much of the research

with parents/caregivers throughout the pandemic relied on self-selection, so over-represented white, wealthier participants, who were less likely to fall into the category of vulnerable (Bywaters *et al.*, 2020; Scottish Government, 2021b; Watts *et al.*, 2021). In addition, very few studies included the perspectives of children at all, and especially those experiencing disadvantage or from minority groups, so these voices are largely missing (Cuevas-Parra and Stephano, 2020; Petretto, Masala and Masala, 2020; Holt and Murray, 2022). Below, we highlight some of the reasons for the low numbers of vulnerable learners attending school throughout the pandemic.

137. 'Supply side decisions' (Sibieta and Cottell, 2020) may have had an impact on the attendance of vulnerable learners. In England, where a greater share of schools remained open as schools stayed open on an individual, rather than a hub basis, a higher proportion of vulnerable learners attended during lockdown (Sibieta and Cottell, 2020; Elliot-Major, Eyles and Machin, 2021). However, we would caution against interpreting this as a straightforward correlation; in Scotland, where the lowest proportion of schools was open, a higher proportion of vulnerable learners attended than Northern Ireland or Wales. Sibieta and Cottell highlight that:

> "*In Scotland, Wales, and Northern Ireland, hub or cluster-based approaches were associated with reduced attendance levels, but will have led to fewer children and staff mixing with each other during the height of the pandemic. The right choice is not obvious, even in hindsight, but policymakers across the UK clearly made different choices in this regard*" (2020, p. 28).

138. Some sources suggest that variation in policy across the UK affected the attendance rates during closures in specific ways: Elliot Major and colleagues (2021) suggested that English policy placed more of an emphasis on eligible learners attending school during closures, in comparison with the other UK jurisdictions. The majority of schools in England remained open to children of keyworkers and vulnerable children, while in the rest of the UK, hub schools were set up for 'clusters' of schools. It is possible this may have contributed to differences in rates of attendance during closures, although there do not seem to be any comprehensive studies that examine this. Sibieta and Cottell (2020) suggested that there was a stronger message from Northern Ireland than from other jurisdictions discouraging key worker children from attending unless they had to. We would, however, caution against drawing overarching correlations between policy statements about vulnerable and key worker children and attendance rates, for three reasons: firstly, there were many other factors involved in children's school attendance at this time, but these were not fully

explored through research with children and families, as outlined above; secondly, policy statements changed rapidly throughout the course of the pandemic, often in response to infection rates and other contextual factors that varied across the UK and over time (for example, in England on May 14 2020, the guidance was updated to advise that 'Now that we have made progress in reducing the transmission of coronavirus we are encouraging all eligible children to attend settings… even if parents are able to keep their children at home'); and thirdly, it appears that there has been no systematic analysis of policy guidance in this area that comprehensively includes all guidance and statements published during this time.

139. Research with parents across the UK has also pointed to a lack of clarity about eligibility to attend school during closures (Carers Week and British Gas, 2020; Kindred Advocacy, 2020; Scottish Women's Aid, 2020; Kassa and Pavlopoulou, 2021; Miller, 2021; Who Cares? Scotland, 2022). In 2021, Ofsted noted that in some cases, parents and carers had reported not being offered a space at school for their child during closures, despite qualifying according to government guidance (Ofsted, 2021b). Similar issues have been raised in other jurisdictions; for example, the inconsistent offering of hub places to care-experienced young people has been raised in Scotland (The Scottish Parliament, 2022), and it is likely, given the discretionary eligibility criteria, that this was an issue UK-wide. It is unclear from published data how many families this applies to, and in what contexts. In addition, appropriate support for complex additional needs was often not and could not be available in schools during closures, for a range of reasons, including the diminished availability of health and therapy services; long waiting times for assessment and treatment; changes to routine, relationships and classrooms due to pandemic mitigations; and school risk assessments (Ofsted, 2021b; The Scottish Parliament, 2022; Waters-Davies *et al.*, 2022; Baird *et al.*, 2025), which is likely to have impacted attendance.

140. It is likely that stigma (that is, being perceived as 'vulnerable' and thus allowed to attend school in person) played a part in the low attendance rates of vulnerable learners during and after school closures, and that fear of infection was also a factor, legitimately so, for those with shielding or clinically vulnerable family members (Treanor, 2020; Ofsted, 2021b; Riddell, 2022; The Scottish Parliament, 2022). It is worth noting that attendance can be an issue for vulnerable learners in the best of times, for example, where the child is a young carer for siblings or parents (not necessarily clinically vulnerable), or where the family is seeking to avoid scrutiny or enquiry by the school, or may be struggling to maintain their child's attendance due

to financial insecurity. However, there were also a range of reasons which pertained to the pandemic specifically.

141. For those who had not been physically at school during closures, some groups of learners found the return to school particularly challenging, and this affected attendance. Those with neurodevelopmental conditions, mental health challenges, or experiencing a high level of anxiety were more likely to struggle with the return to school, sometimes compounded by Covid-19 restrictions on reopening, which interrupted their usual routines (Young Minds, 2020; Ofsted, 2021b; Skripkauskaite *et al.*, 2021; McDonald, Lester and Michelson, 2023). For learners with neurodevelopmental conditions, survey evidence suggests that school absence and persistent absence was more common among those who had not attended school in-person during closures, even after adjusting for confounding factors (Kouroupa *et al.*, 2023). This underlines the importance of additional support being made available to those who need it during school closures and reopenings.

142. Approximately 62,000 children in the UK in 2023 may be experiencing debilitating long-term conditions following a Covid-19 infection (Long Covid) (Office for National Statistics, 2023). In a survey of 317 parents and carers, 75% said their child's attendance had been affected (Long Covid Kids, 2023). Children with Long Covid have highlighted the extreme fatigue associated with the condition; this makes school in-person and online attendance challenging, and some have found that part-time attendance is helpful as part of a suite of supports to help them re-engage with school (MacLean *et al.*, 2023).

2.6 The physical attendance of all children when education was open to most children

143. As outlined in Table 9 below, schools re-opened in a variety of formats following the first period of school closures (Phase 2). The four jurisdictions differed in their policy decisions around when and how to re-open schools. This meant that the amount of in-person attendance at school available to children differed across the UK. Schools re-opened in England for some year groups in June and July 2020, and in Wales, learners returned to a blended approach in June 2020, with up to one third of learners attending at any one time. It is important to note that local restrictions in response to infection spikes also meant that there were various localised school closures throughout the UK in addition to those outlined here. An Institute for Fiscal Studies survey in England estimated that 65% of those eligible to return during the

limited reopening in June and July 2020 used this opportunity (Cattan *et al.*, 2021). This was a much lower attendance rate than when schools subsequently opened to all learners after the summer holidays (87%). In all four jurisdictions, schools reopened for all learners after the summer holidays (mid-August in Scotland, 31st August in Northern Ireland, and early September in England and Wales).

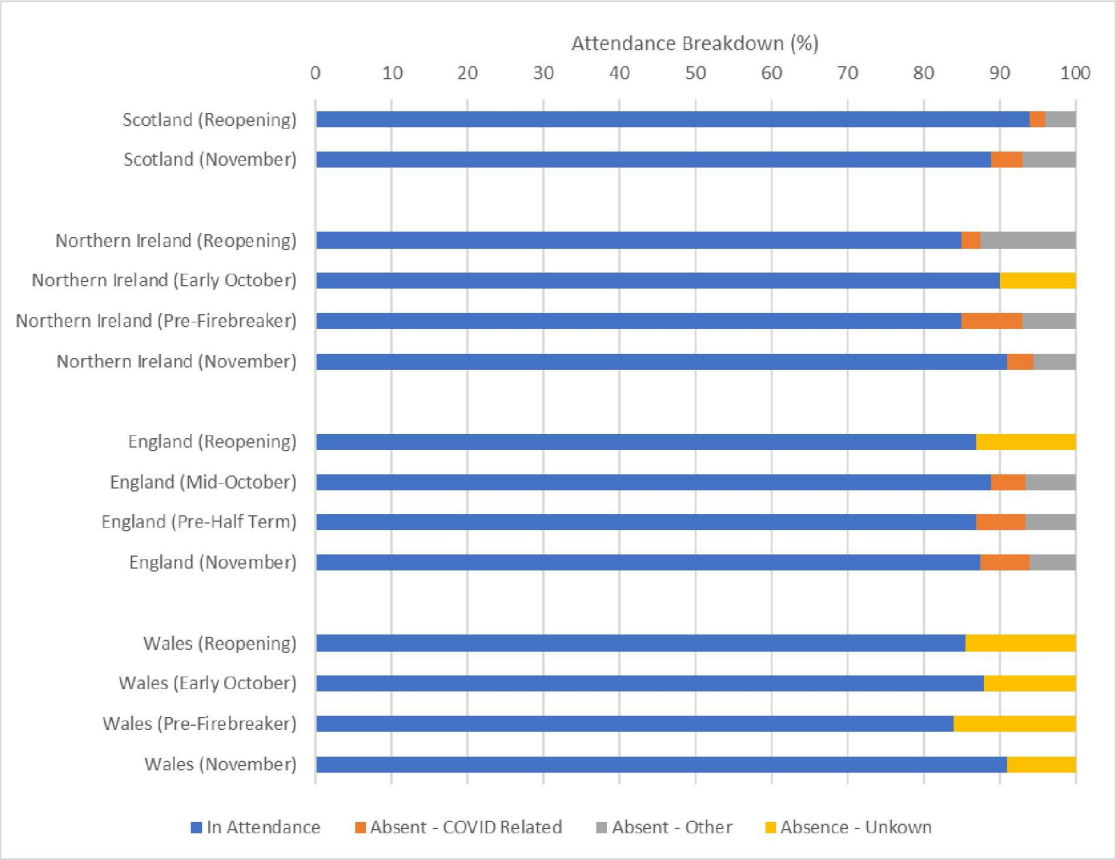
Table 9: School attendance across the UK during the pandemic

	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	
England	schools open (some individual school closures)	All levels of schooling closed 23 March. Individual schools open to 'vulnerable' children and children of key workers.	All levels of schooling closed. Individual schools open to 'vulnerable' children and children of key workers.	All levels of schooling closed. Individuals chools open to 'vulnerable' children and children of key workers.	01 June - in-person resumed for Reception, Year 1, and Year 6. 15 June - in-person resumed for year 10 and year 12 students preparing for exams	Reception, Year 1, and Year 6 and year 10 and year 12 students preparing for exams remain in-person. All others remain online.	Summer holidays	At the start of the new academic year in September all levels of education resumed.	Schools open	Schools open	Schools open	Schools close 5th January (after opening 4 January)	All levels of schooling closed. Individual schools open to 'vulnerable' children and children of key workers.	All primary schools opened 8 March. Secondary school followed through a phased reopening linked to a tier system based on community infection rates	12 April - schools open	Key Orange = SEND/ASN/ASL Red = 'vulnerable'/ key worker Blue = primary Green = secondary
Northern Ireland	Schools open for all	All levels of schooling closed 18 March. Hub schools open to 'vulnerable' children and children of key workers.	All levels of schooling closed 18 March. Hubs chools open to 'vulnerable' children and children of key workers.	All levels of schooling closed 18 March. Hub schools open to 'vulnerable' children and children of key workers.	All levels of schooling closed 18 March. Hub schools open to 'vulnerable' children and children of key workers.	Summer holidays	24 August: Primary 7 and Year 12 and 14 students returned to in-persons chooling. 31 August - all schools began in person teaching for the new academic year	Schools open	October 2020 - half term extended and schools closed between 19th and 30th	Schools open	Schools open	Schools close 4 January (schools remained closed after holidays)	All levels of schooling closed 18 March. Hub schools open to 'vulnerable' children and children of key workers.	8 March - Special schools reopened. 22 March - Primary students and secondary students in exam years begin blended approach (some online, some in-person)	12 April - schools open	
Scotland	schools open	All levels of schooling closed 23 March. Hub schools open to 'vulnerable' children and children of key workers.	All levels of schooling closed 23 March. Hubs chools open to 'vulnerable' children and children of key workers.	All levels of schooling closed 23 March. Hub schools open to 'vulnerable' children and children of key workers.	All levels of schooling closed 23 March. Hub schools open to 'vulnerable' children and children of key workers.	Summer holidays	11-17 August - schools reopened full-time after the summer holidays	Schools open	Schools open	Schools open	Schools open	Schools close 6 January (schools remained closed after holidays)	22 February, schools reopened to pupils in P1-3, a limited number of pupils (5-9% of the secondary school roll at any one time) in S4-6 on a part-time basis, and a small number of pupils with additional support needs (ASN).	15 March, other secondary school pupils except those on the high-risk list could return on a part-time basis	12 April - schools open	
Wales	schools open	All levels of schooling closed 23 March. Hub schools open to 'vulnerable' children and children of key workers.	All levels of schooling closed 23 March. Hubs chools open to 'vulnerable' children and children of key workers.	All levels of schooling closed 23 March. Hub schools open to 'vulnerable' children and children of key workers.	29 June - primary and secondary schools reopened with blended approach (max. 1/3 students in-person at one time)	Primary and secondary schools open with blended approach (max. 1/3 students in-person at one time)	Summer holidays 17 July - 31 August	New academic year - schools open for all	19 October: 17-day circuit break lockdown. Schools remained open for those aged 8 or younger, or for secondary students in exam years	Schools open	Schools open	Schools close 14 December (week before holidays)	22 February - in-person learning for 3- to 7-year-olds	15 March - in-person learning for remaining primary students and secondary exam year students	12 April - schools open	

Note: School closure dates refer to the general student population, as in all jurisdictions, some in-person attendance remained available for specific student groups throughout the Covid-19 period.

144. Figure 7 shows physical attendance rates following full reopening in Autumn 2020 (Phase 3). At this time, attendance was highest in Scotland (94%) and remained higher than in the other UK jurisdictions for most of the autumn term. In his analysis of attendance rates following reopening, Sibieta notes that this may be partially explained by the fact that schools in Scotland and Northern Ireland "*…reopened at a time when infection rates were close to a low point in August 2020*" (2020a, p. 4).

Figure 7: In-person attendance in Autumn 2020



Reproduced from (Smith *et al.*, 2024). Source: (Sibieta, 2020a).

145. Attendance was generally associated with community infection levels, with lower attendance when infection rates were higher (Sibieta, 2020a; Southall *et al.*, 2021). The percentage of absences related to Covid-19 increased over time following the return to in-person learning.

146. In Northern Ireland, following the two week 'firebreak' closures in October 2020, there was a drop in Covid-19 related absences. Although data regarding the reasons for absence is not available in Wales, Figure 7 highlights that it is likely that Wales'

firebreak lockdown, which included school closures for some year groups, had a similar effect.

147. Throughout the pandemic, UK jurisdictions varied in their policy approaches to attendance. In Scotland for example, the Government advised schools not to mandate attendance, acknowledging that parents and learners may be concerned about the return to school (Scottish Government, 2020c). In contrast, in-person attendance was mandated in England when schools were open (with the exception of the period when some schools were reopened prior to the 2020 summer holidays, during which fines were suspended) and parents could be prosecuted if their children did not attend (Cattan *et al.*, 2021; Smith *et al.*, 2024). 45,809 penalty notices (parental fines) were issued in England in the 2020-21 school year, which is a significant drop from the 333,388 issued in 2018-19, but still highlights varying approaches to attendance across the UK (and across England; 22 out of 152 local authorities (14%) accounted for over 50% of penalty notices) (Department for Education, 2021a).

148. Socio-economic inequalities relating to attendance and absenteeism were exacerbated by the pandemic across the UK. In Scotland, those from lower socio-economic backgrounds missed more school than others post-lockdown due to sickness or self-isolation related to Covid-19, but also due to a widening gap in non-Covid-19 related absences (Sosu and Klein, 2021; Scottish Government, 2023b). In November 2020, attendance in the most deprived area in Scotland was 84%, relative to 93% for the least-deprived area (Sibieta, 2020a). In Wales, the gap in absence rates between those eligible and not eligible for free school meals was reported to have doubled during the pandemic, reaching 7%. In England, parental earnings were found to be a:

> "*…very strong predictor of the return to school; among children who had the option to go back for in-person learning, a child in the top percentile of the pre-COVID earnings distribution was more than 25 percentage points more likely to take up that offer than his or her peer in the bottom percentile*" (Cattan *et al.*, 2021, p. 12).

149. In line with this, Gibbons and colleagues' (2024) analysis of absences in England that were not directly caused by policies directed at schools, when schools were open in Autumn 2020, found that wider government and local policy, including tiered restrictions, impacted school attendance. Crucially, these restrictions disproportionately affected learners from lower socio-economic backgrounds

(Gibbons, McNally and Montebruno, 2024). While Gibbons *et al*. suggest that this is likely to be driven by changed family attitudes to attendance arising from, "*pupil health policies, school and work restrictions of the time, that has persisted post pandemic*" (p. 1), it is worth noting that little research appears to have taken place hearing the views of parents, carers, children and young people about the reasons for school attendance and non-attendance.

2.7 The impact of non-pharmaceutical interventions in the classroom

150. The introduction of NPIs in education settings affected learning throughout the course of the pandemic, as schools faced full closures, partial openings/restrictions on attendance in person, 'social' (physical) distancing, new hygiene and safety measures, and changes to communications between home and school. The use of face masks, handwashing, segmenting of staff and learners into small groups or 'bubbles', staggered school start and end times, one-way systems around school campuses, contact tracing, isolation and regular testing, ventilation, and a ban on extra-curricular activities such as sports clubs, breakfast or homework clubs all helped to reduce infection, but also had other unintended consequences.

151. These public health measures were implemented to ensure a necessary level of physical safety. Learners themselves were generally supportive of face coverings in the early months of the pandemic but were worried by how much they affected their communication and, importantly, continuity of learning itself (Department for Education, 2022a). Unintended consequences of NPIs affected all children and young people and in addition, disproportionately impacted on learners already known to face disadvantage in education. It is important to bear in mind the increased cognitive demands on all young people as they adjusted, re-adjusted and then adjusted again to frequently changing regulations over the course of the pandemic.

152. When schools re-opened for the autumn term (and earlier for some age groups) under tight restrictions, there were new challenges. For example, early literacy development relies not just on phonics but on facial expression, lip reading, and social interaction. Teachers reported significant challenges in fostering phonological awareness, with children struggling to associate sounds with visual cues—a critical aspect of early reading skills and confidence. Research highlighted teacher concerns about not being able to model words or demonstrate and check pronunciation because of mask wearing and limited face-to-face interaction (Marchant *et al.*, 2022).

Some of these same issues affected new learners of English (Scottish Government, 2021b) and those with special needs (see Chapter 4).

153. As well as impacts on delivery of the formal curriculum within schools, impacts on inter-personal and social learning occurred affecting learner wellbeing. School closures, social distancing and face masks all affected key aspects of individual and social development, through lost opportunities for building relationships, for physical, creative and imaginative free play, outdoor learning, face-to-face interaction, peer and collaborative group learning and teamwork, and planning for transitions (such as from primary to secondary school); all of which are crucial elements of child and adolescent educational development. These impacts were experienced by all children and young people.

154. Outside of school, children who would normally participate in activities run by youthwork services, for example, in neighbourhood community centres, were unable to do so. Youthwork practitioners adapted to provide services remotely, through summer programmes, and outside on local streets when this was allowed. This work often took the form of collaborations between public and voluntary sectors and partnering with the schools and colleges to help the older children they were in touch with achieve awards and accreditation (YouthLink Scotland and Northern Star, 2022). It is recognised that community-based youthwork provided a vital safety net for many vulnerable children during this time although evaluations seem to be sparse.

155. School leaders looked for ways to mitigate impacts within schools and often introduced or strengthened personal and social development sessions as soon as this was practically possible (Ofsted, 2021b). Some effects will only be fully understood in the longer term, but research has identified early indications of impacts. In England, for example, one key study suggests that:

> "*On average, the social maturity of pupils in 2023/2024 was not significantly different to those expected of children of the same age had the pandemic not happened. Most pupils were broadly average in terms of their social maturity, although disadvantaged pupils, and boys, were assessed as having significantly lower social skills than non-disadvantaged pupils and girls, respectively*" (Rose *et al.*, 2024, p. 5).

156. Learner wellbeing was a central concern of policymakers across the UK throughout the pandemic, allied to the issues outlined above but also as a concern in its own right. Young people aged 13 to 15 years were negatively affected to a greater extent

than primary school learners because of their need, developmentally, for increased peer support and interaction (Panchal *et al.*, 2023). Some schools, individual teachers and school-based counsellors provided additional support for young people in ways that were highly valued by them (McCluskey *et al.*, 2021). However, most research indicates that learners who had not been identified as requiring support prior to lockdown, and who then looked for that support during the pandemic, found it hard to access (McCluskey *et al.*, 2021). Effects on mental health are examined separately and in greater detail in INQ000587958 and it can be difficult to disentangle the effects of the pandemic on wellbeing, but it is worth noting here the concerning findings about increased levels of emotional difficulties across the UK (NHS England Digital, 2021; Moore *et al.*, 2022).

2.8. Remote learning

157. For those learners who were not eligible to attend school or did not attend school as closures took place in March 2020, schools and teachers had to facilitate (emergency) remote learning access; that is the majority of learners continued their learning outside school, typically in their own homes. As widely reported, "*school closures at short notice created severe disruption, and headteachers had to mobilise staff to teach remotely with little preparation or training time*" (Bubb and Jones, 2020, p. 209). The switch to 'emergency remote learning' was not carefully planned and designed, and therefore online provision during the first lockdown was unsurprisingly markedly different from high-quality online learning (Hodges *et al.*, 2020). Understandably, and given the lack of readiness of schools as they closed in March 2020 (see Chapter 1), there was a wide variation in the amount and types of emergency remote learning offered to learners, as well as the quality of this provision, and the take-up by learners (Delve Initiative, 2020; Audit Scotland, 2021; Howard, Khan and Lockyer, 2021).

158. In the early months of the pandemic, and especially during the first lockdown, many local authorities and school leaders encouraged staff to focus on maintaining relationships and consolidating learning more than introducing new curriculum content. A narrowed curriculum with an emphasis on core subjects meant that subject areas such as music, art, religious and moral education, were often deprioritised. Secondary school subjects with a large practical element, such as art, home economics and physical education, were highly circumscribed (Office for National Statistics, 2021).

159. For younger children and those with special needs and/or disabilities, the impact of school closures was considerable, and the move to online learning often made little provision for learners with special and specific needs, at least in the initial period (see Chapter 4). As one young person said:

> "*I feel I have been caught between a rock and a hard place when I have been feeling upset – you can either try to keep doing the schoolwork even if you're struggling…. or stop and then get punished the next day when there is twice as much work. You just can't win either way. I could have really used a bit more flexibility and understanding from the school.*" (Scottish Government, 2021c, p. 20).

160. However, the remote learning provision developed over time, becoming increasingly sophisticated, albeit with a steep learning curve at times for many stakeholders (Howard, Khan and Lockyer, 2021; Waters-Davies *et al.*, 2022). Notably, teachers, learners and parents at schools that were more digitally mature before the pandemic found the pivot to remote learning much easier (Hodgen *et al.*, 2020; Colville *et al.*, 2021; Chapman *et al.*, 2022).

161. Schools began to reopen for in-person teaching in August/September 2020. During this period, all four jurisdictions required schools to have active contingency plans to support remote education should the need arise for further school closures, or for individual learners to be out of school (Cambridge, 2020b; Ofsted, 2021a; T. Coleman, 2021). Most schools across the UK at times needed to deal with both in-class teaching and remote learning, sometimes providing hybrid learning to the same class (teaching whilst also facilitating remote access for isolating learners). For example, in England, around two thirds of schools experienced this (CooperGibson Research, 2021). Given that Covid-19 rates were higher in disadvantaged communities, it is likely that disadvantaged learners would have been more likely to be out of school during this period (Blundell *et al.*, 2021).

162. By the second period of UK-wide school closures, schools had more established infrastructure and were provided with much more guidance and resources, and teachers had developed more knowledge of online pedagogies, digital skills and confidence (Howard, Khan and Lockyer, 2021). The delivery of remote learning continued to improve (Education Scotland, 2021; McCluskey, Abaci, *et al.*, 2023) as schools built on their previous experiences and developed a better understanding of effective digital pedagogy. For example, schools in England felt better prepared (Rose *et al.*, 2021).

163. As reported in Chapter 1, the digital divide pre-existed Covid-19. The significant educational disruption and rapid shift to remote learning brought the digital divide into sharp focus (Cahoon, McGill and Simms, 2021). Over the course of the pandemic, the nature of the digital divide shifted in relation to region, policy, and variations in speed and scale of response.

164. Although there is a huge volume of research on the impact of Covid-19 on schools and education, most commonly through surveys of school leaders, teachers, learners and parents, there is scant research on specific subject areas (particularly those beyond core subjects such as English and mathematics), vocational qualifications and groups preparing to take high-stakes assessments (Howard, Khan and Lockyer, 2021).

School digital infrastructure

165. Readiness to deliver remote education partly relates to school infrastructure, and many schools invested in developing this over the first few months of the pandemic, particularly in relation to facilitating online learning. As noted in Chapter 1, Northern Ireland, Scotland and Wales had established national learning platforms prior to the pandemic through which schools could access other digital tools based on their needs and preferences, although their use was not mandatory. On 24 April 2020, the Department for Education announced that funding would be made available for schools in England to access training and support to use Google or Microsoft learning platforms (Department for Education, 2020g). Google Classrooms and Microsoft Teams were the two most popular platforms across the UK but many other online learning tools were being used by schools at this time (Gibbons, 2020d; Chapman *et al.*, 2022; Anderson, 2023). Learning platform use increased over this period and school infrastructure was developed further to support new kinds of activity, such as live lessons and learners submitting work. For example, in a survey of 590 primary schools and 202 secondary schools in England conducted from November 2020 to January 2021, nearly all schools (94% of primary, 97% of secondary) indicated that they had improved the school technology provision over the previous 12 months, including learning platforms as well as device provision for teachers and learners (CooperGibson Research, 2021). Primary schools focused on introducing or upgrading their learning platform provision 'to set and receive pupils' work' (86% of primary schools compared to 63% of secondary schools) while secondary schools prioritised specific technology to support the delivery of live lessons (89% of secondary schools compared to 59% of primary schools)

(CooperGibson Research, 2021, p. 29). Despite the significant investment in digital infrastructure, school leaders in England reported that their plans and strategies for remote learning were still maturing during this period (Ofsted, 2021a). Similarly in Wales, schools rapidly reviewed their current provision and the specific needs of supporting remote learning, adopting new tools to ensure consistency and provide appropriate functionality (e.g. learners submitting work) (Chapman *et al.*, 2022).

166. As the second period of school closures was beginning, headteachers and teachers in England identified a continuing need to invest in digital technologies to support online remote learning, particularly to support live lessons and assessment. That is, school digital infrastructure remained insufficient to meet school needs, despite significant investment and improvements.

Key elements of remote learning

167. Initially, learners were typically provided with worksheets, assignments, and pointed to educational videos and other online resources (if they had appropriate home access); live online lessons and online discussions were uncommon (Cullinane and Montacute, 2020; Elliot-Major, Eyles and Machin, 2020; Green, 2020; Lucas, Nelson and Sims, 2020; Flynn *et al.*, 2021; Howard, Khan and Lockyer, 2021; Chapman *et al.*, 2022; Cullinane *et al.*, 2022; Anderson, 2023; McCluskey, Abaci, *et al.*, 2023). Across the UK, just over half of learners did not have any live online lessons at all in April 2020 (Eivers, Worth and Ghosh, 2020). In a survey of more than 2,000 parents in Northern Ireland conducted around the same time, 76% said that their child's school did not offer live online lessons and only 8% said they were offered regularly (Walsh *et al.*, 2020).

168. However, there were also differences in provision between private and state schools, and primary and secondary schools. For example, in England, 94% of private schools provided live online lessons, compared with 65% of state schools (Cullinane *et al.*, 2022). Notably, the extent of use in the private sector was far higher, with 31% of private schools across the UK providing four or more live online lessons per day compared to just 6% of state schools (Green, 2020). When live online lessons were offered in the state sector, typically for 1 to 2 hours per day (Howard, Khan and Lockyer, 2021), it was more common in secondary schools than primary schools (Office for National Statistics, 2020; Cattan *et al.*, 2021; Flynn *et al.*, 2021; Ofsted, 2021a). For example, in a survey of 140 headteachers in England, only 5% had offered live lessons to learners aged 4 to 5 years old and 9% had offered them to learners aged 5 to 6 years (Rose *et al.*, 2021); in contrast, over one-third of schools

produced videos of lessons. This difference is not surprising given that primary schools had lower levels of digital maturity prior to the pandemic and that live lessons for the youngest learners can be more challenging as parental support is often needed (Ofsted, 2021a).

169. Provision of live online lessons increased over the first lockdown as schools introduced appropriate infrastructure and developed guidance for staff, learners and parents (Andrew, Cattan, Dias, *et al.*, 2020; Cattan *et al.*, 2021; Ofsted, 2021a). Guidance, support and evidence was offered more broadly by different organisations across the four jurisdictions. For example, in Scotland, e-Sgoil (a virtual school) worked with SCHOLAR (online course provider) to provide live online lessons for learners preparing for Scottish qualifications (e-Sgoil, 2021). The importance of facilitating peer interaction and providing feedback to keep online learners motivated was highlighted by many (Department of Education, Northern Ireland, 2020a; Education Endowment Foundation, 2020). Live online lessons offer a good means of facilitating interaction and providing verbal feedback. However, there continued to be a great deal of variation in the provision of live online lessons across all schools in the UK during the first lockdown period (Howard, Khan and Lockyer, 2021). One of the challenges that had to be addressed related to schools and staff having safeguarding and privacy concerns, which meant that many schools put restrictions in place in relation to camera use and this had a negative impact on keeping learners engaged (Walker *et al.*, 2022).

170. Unsurprisingly, teachers across the UK initially drew on a wide range of pre-existing, and an increasing provision of new, digital resources, both from external and internal sources (Lucas, Nelson and Sims, 2020). Many teachers in Scotland indicated that they shared resources and had been able to tailor resources to meet their learners' needs (The Educational Institute of Scotland, 2020). However, some teachers in Scotland expressed concern about the lack of access to good-quality online resources (15%, n=26,128) (The Educational Institute of Scotland, 2020). Data on teachers in England creating their own video lessons varies from one-third to 44% (Lucas, Nelson and Sims, 2020; Rose *et al.*, 2021).

171. Organisations across the UK responded quickly to schools' needs for additional resources. At the beginning of April 2020, the BBC announced that it was launching a wider range of educational resources from 20 April, including daily programmes on BBC iPlayer, daily uploads of curriculum resources to BBC Bitesize, podcasts for parents, and specific programmes to support learners preparing for GCSEs and

A-levels (Gibbons, 2020a). Similarly, Oak National Academy was provided with funding by the Department for Education, as well as from philanthropists (Gibbons, 2020b). Oak National Academy developed 'virtual lessons', with video explanations, quizzes and worksheets for subjects across the curriculum, initially focusing on maths and English. On its launch day, 250,000 lessons were accessed (Tes reporter, 2020). Materials to support learners with special needs were launched a month later (Lough, 2020b). In England, Oak National Academy resources were very popular, with 72% of secondary schools and 84% of primary schools accessing them (CooperGibson Research, 2021).

172. In Northern Ireland, online resources were provided by various government bodies, including DENI (Bates, Finlay and O'Connor Bones, 2023). The RTE launched Home School Hub at the end of March 2020, providing one hour of programming each day for primary schools (Walsh *et al.*, 2020). Resources and guidance to support remote learning were also provided by BBC Northern Ireland and the Council for the Curriculum, Examinations & Assessment (Walsh *et al.*, 2020).

173. In Scotland, Education Scotland provided resources, such as best practice exemplars, through the national learning platform, Glow, as well as regional level support offered by local authorities (Cambridge, 2020a; Audit Scotland, 2021). Although Glow Connect usage grew over the pandemic, teachers reported different engagement levels, with some schools only having 50% participation levels, while others achieved 80 to 90% (Cambridge, 2020a). The National e-Learning Offer (NeLO) was established in June and July 2020. It brought together a range of resources, including recorded lessons from the West Partnership (initially targeting learners aged 16 to 18 years studying for qualifications), interactive online courses from Scholar, resources on BBC Bitesize aligned with the Scottish Curriculum, and tools to support live, interactive learning through e-Sgoil (e-Sgoil, 2021; Smith *et al.*, 2024).

174. The Hwb learning platform in Wales was used to provide a repository of resources to support lessons, including videos and quizzes, and curating resources from other providers such as BBC Bitesize (Hallahan, 2020). In Wales, in a survey of 560 secondary learners conducted in June/July 2020, 50% had used BBC Bitesize, 37% used Hwb resources and only 5% used the Oak National Academy resources (Taylor, 2020). A survey of staff at 24 schools in November 2020 suggests that use of the Hwb was not fully established in all schools prior to the pandemic; it took time for

teachers, learners and their parents to get access and find out resources were available (Chapman *et al.*, 2022).

175. Schools continued to develop their online remote learning offer between August 2020 and December 2020, with increasing numbers delivering live lessons as they developed the infrastructure and skills to do so. Live lessons were typically offered in England when whole groups of learners were isolating (Ofsted, 2020b), although this was more commonplace in schools serving more advantaged communities (Blundell *et al.*, 2021). Individuals were not usually offered live lessons in England but were provided with a two-week package of non-digital and digital resources and activities (including recorded lessons) (Ofsted, 2020b).

176. This period was challenging for teachers, given the need to prepare and deliver the curriculum both in-school and remotely, leading to increased workload (Ofsted, 2020b, 2020a). Learners who were in-school in England were reported to have had higher-quality learning experiences than individual learners who were learning remotely because teachers were, unsurprisingly, not able to give remote learners as much support and feedback (Ofsted, 2021a). It was easier for teachers to manage a switch to remote learning for groups of learners (Ofsted, 2020a, 2020b). In Scotland, e-Sgoil (a virtual school) provided short-term support to learners because they were isolating or shielding, or when there were high levels of teacher absence at their schools (e-Sgoil, 2021).

177. In the second period of UK-wide school closure for most learners, from January 2021 to March 2021, there continued to be great variability between schools in how online remote learning was delivered, for example in the provision of live lessons (Education Scotland, 2021). However, there was a substantial increase in the provision of live lessons in both primary and secondary schools (Cattan *et al.*, 2021; Nelson, Andrade and Donkin, 2021; Rose *et al.*, 2021; Cullinane *et al.*, 2022). While only 4% of teachers in England were delivering live lessons at the start of the first period of closures for schools in March 2020, this had risen to 54% at the start of the second period (Montacute and Cullinane, 2021). In the first few days, a stark difference remained between the use of live lessons in England by private (85%) and state schools (50%) (Montacute and Cullinane, 2021). However, this disparity reduced over the duration of this period of school closures. Socio-economic differences remained to some degree, with the vast majority of grammar schools and more advantaged secondary schools providing live lessons, catching up with the high levels of private school provision, in comparison with only four out of five of the most

disadvantaged schools (Cullinane *et al.*, 2022). Live lessons remained less popular in primary schools, which more commonly used pre-recorded digital resources and paper-based activities (Müller and Goldenberg, 2021).

178. Live lessons were advocated by many in relation to making learning more interactive and engaging, and being able to provide timely feedback. However, school and staff concerns about safeguarding and privacy issues in relation to learners having their cameras on during live lessons remained, despite advice highlighting the potential benefits alongside recommendations for managing the risks (Welsh Government, 2020e; Department for Education, 2021b; SWGfL, 2021). In a survey of teachers in England, 5% of primary schools required learners to have their cameras off and 42% of secondary schools; only 19% of primary school learners and 15% of secondary school learners were required to have their cameras on (Teacher Tapp, 2021). There were also concerns about inclusion and live lessons as not all learners were able to be online at the same time for a variety of reasons, such as the need for learners (and parents) to share devices and parents' work commitments if they were required to be present (Müller and Goldenberg, 2021). To address this, schools offered a mix of pre-recorded lessons, which could be accessed at any time, and live lessons.

179. A wider range of educational resources such as pre-recorded videos were also available for teachers to draw on. Teachers made less use of resources such as those curated by BBC Bitesize and greater use of Oak National Academy resources (Teacher Tapp, 2021). An evaluation of the impact of Oak National Academy in the 2020/21 academic year indicated that "*teachers downloaded a total of 885k resources (slides and worksheets) and shared a link to a lesson 239k times*" (ImpactEd, 2021, p. 14) as well as starting 110 million lessons. Unsurprisingly, the highest activity levels were between January and March 2021, although there was a downward trend over this period (ImpactEd, 2021). These resources were most popular for supporting remote education in Key Stage 2 (ie primary) and slightly more popular in schools serving disadvantaged areas. Teachers reported that the resources had saved them time, enabling them to offer more support to their vulnerable learners than they might have otherwise been able to. There was also an increase in teacher created videos in both primary and secondary schools (Teacher Tapp, 2021).

180. Assessment practices developed from the first period of school closures (Education Scotland, 2021). However, as noted in the Scottish Covid-19 Inquiry, providing "*high-quality feedback online is time-intensive for teachers*" (McCluskey, Abaci, *et al.*,

2023, p. 26), a challenge that was echoed by others (e.g.(Müller and Goldenberg, 2021)). As teachers developed their digital skills, they were able to find ways to address this challenge. For example, teachers in England provided recorded verbal feedback, which was considered to be important for younger learners, although it was not as commonplace in primary schools as it was in secondary schools (Müller and Goldenberg, 2021). Even tracking submission of work was considered to be more time-consuming despite the potential benefits of digital tools automating aspects of this.

181. In-school experiences are likely to have improved as learners attending school (in higher numbers than in the first period of school closures) would have been engaging in the improved, more structured and more interactive remote provision as well (Cattan *et al.*, 2021). However, there is a lack of data comparing in-school to home experiences during this period (Cattan *et al.*, 2021).

182. After the second period of school closures, schools and colleges in England continued to support online remote learning for learners not able to attend school, However, as this was on an individual basis, live lessons were not generally offered (Walker *et al.*, 2022).

The school/college day

183. Prior to the pandemic, learners typically spent five to six hours learning in school per day plus additional time on homework (Howard, Khan and Lockyer, 2021). Learners spent much less time learning remotely during the first period of school closures, and there was huge variation. For example, data from 560 secondary learners in Wales collected in summer 2020 suggests that 40% of secondary school learners spent 10 hours or fewer per week on schoolwork compared to 15% of children who spent more than 20 hours per week (Taylor, 2020).

184. A review of research from England (Howard, Khan and Lockyer, 2021) estimated the average time spent learning remotely was 2.5 to 4.5 hours per day in total based on a synthesis of data from teachers, learners and parents (drawing on (Andrew, Cattan, Dias, *et al.*, 2020; Green, 2020; Office for National Statistics, 2020; Pensiero, Kelly and Bokhove, 2020; Cattan *et al.*, 2021)). This is supported by data from Northern Ireland (Walsh *et al.*, 2020). Andrew and colleagues (2020) in a survey of 5,582 parents in England undertaken between 29 April and 20 June 2020 asked specific questions about the time that their children spent on certain learning-related tasks. Figure 8 below draws on this data to provide an illustration of a typical day for a

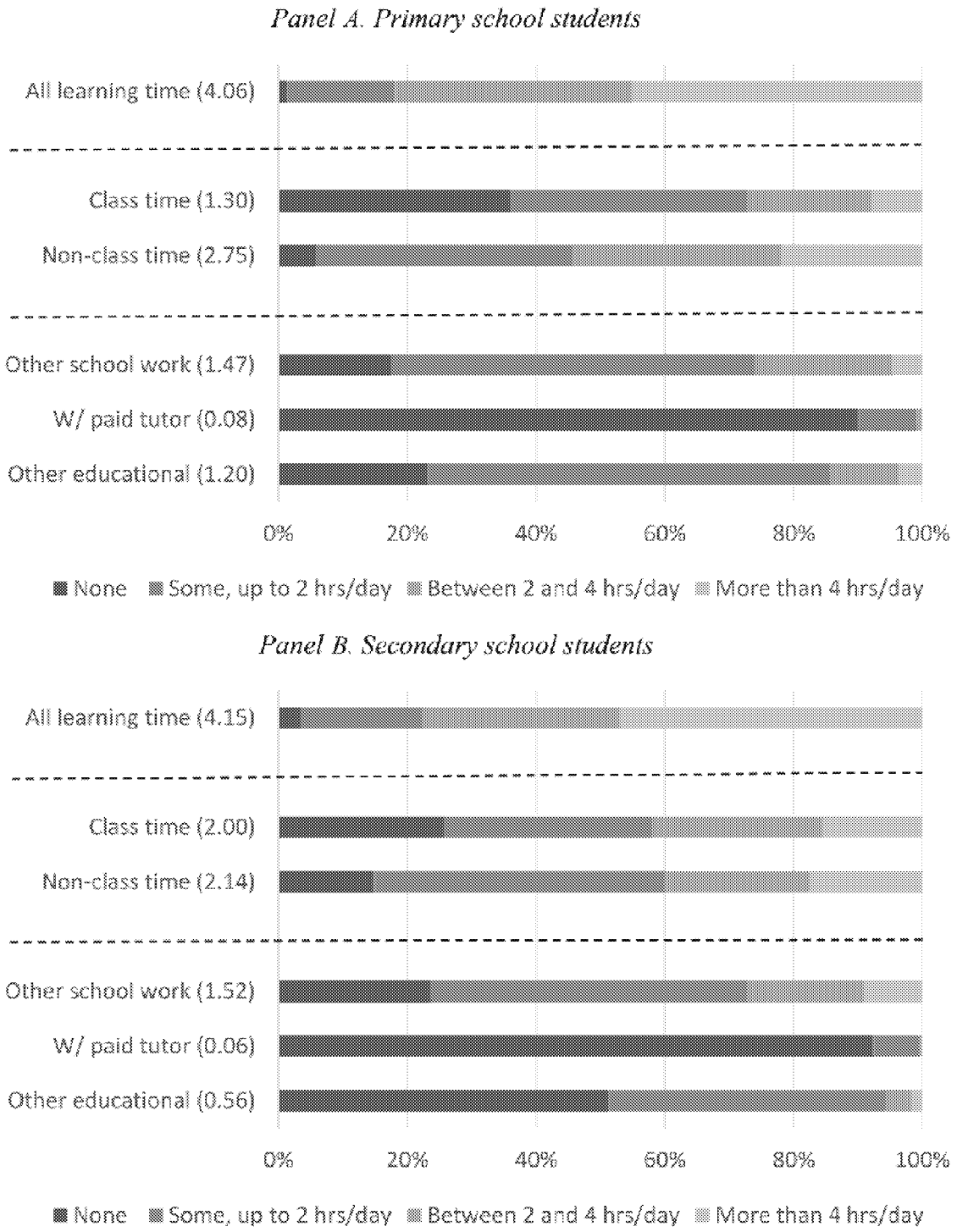
primary learner and a typical day for a secondary learner, each spending approximately four hours a day on schoolwork.

> "*However, these averages mask large variation; while 36 per cent and 26 per cent of primary and secondary school students were reported to spend 0 hours doing online classes respectively, over a quarter of primary school children and over 40 per cent of secondary school children do more than 2 hours*" (Andrew, Cattan, Costa Dias, *et al.*, 2020, p. 665).

185. Whilst Andrew and colleagues' data (2020) suggests very little difference, on average, in the time spent learning at home by primary and secondary learners, data collected by the Office for National Statistics (2020) from 6,350 parents across the UK at around the same time suggests that there was a difference, partly attributed to household circumstances.

> "*The average number of hours spent doing schoolwork per week significantly increased as the age of the child increased from 5 to 10 years (10 hours) to 11 to 15 years (16 hours), with the hours spent learning by those aged 5 to 10 years being significantly lower when there was a child aged 0 to 4 years in the household*" (Office for National Statistics, 2020, p. 1).

Figure 8: Distribution of time spent on educational activities on a 'school' day ('class time' = online lesson, 'non-class time' is the sum of 'other school work', 'w/ paid tutor' and 'other educational')



Source: (Andrew, Cattan, Costa Dias, *et al.*, 2020, p. 664).

186. Furthermore, not all learners undertook schoolwork every day. Drawing on data from a cohort of secondary learners tracked through the COVID Social Mobility and Opportunities (COSMO) study, only 54% of learners worked remotely every day and 9% reported doing no work at all in a typical week (Cullinane *et al.*, 2022), with similar findings reported elsewhere (e.g.Wales: (Taylor, 2020); Northern Ireland: (Walsh *et al.*, 2020)). In contrast, the Association of Colleges in England reported that just over half the colleges (52%) were "*delivering 75% to 100% of their planned learning hours remotely to learners who were under 19*" (Association of Colleges, 2020, p. 4).

187. There is much less evidence about the provision made for learners who attended school in person during the first lockdown (deemed as vulnerable or whose parents were key workers). Evidence from a survey carried out by the TES (weekly magazine for education professionals) with almost 19,000 teachers in April 2020 suggests that there was wide variation, with around half saying that in-school learners were being taught for three or more hours per day to around one in five (22%) indicating that their school was providing no teaching to in-school learners (Stewart, 2020). However, this is unsurprising given that the Secretary of State for Education in England, Gavin Williamson, said that schools would be a 'safe space' and not 'an educational setting' (Lough, 2020a), a sentiment also echoed in other jurisdictions (Department of Education, Northern Ireland, 2020b; Welsh Parliament, 2020; Smith *et al.*, 2024). In contrast, data collected by the Office for National Statistics from teachers in England (April 2020 to July 2020) suggests that learners were covering less material remotely than their peers in school, and this difference was greater for learners at disadvantaged schools (25% of schools with the highest levels of pupils eligible for free school meals, no information on inclusion of private schools provided) (Office for National Statistics, 2021).

188. There is strong evidence of socio-economic differences from a number of studies (e.g.(Elliot-Major, Eyles and Machin, 2020), with private school learners spending more time on lessons than state school learners, and advantaged learners spending more time than their disadvantaged peers for a number of reasons including: live lesson provision (more common in private schools and those serving more advantaged communities), higher-earning parents paying for private tutoring, and better access to digital devices and suitable study spaces in more affluent households (Andrew, Cattan, Dias, *et al.*, 2020; Eivers, Worth and Ghosh, 2020;

Elliot-Major, Eyles and Machin, 2020; Blundell *et al.*, 2021; Cullinane *et al.*, 2022). In England, for example, parent survey data suggests the following:

> "*Taking primary and secondary schools together, children in the best-off households are spending 5.8 hours a day on learning activities, over 75 minutes more each day than the 4.5 hours that children in the poorest fifth of families are spending on home learning.*" (Andrew, Cattan, Dias, *et al.*, 2020, p. 9)

189. There were also gender differences, with girls spending more time on average than boys on schoolwork, 14.6 hours per week in the first lockdown versus 12.2 for boys (Cullinane *et al.*, 2022).

190. From August 2020 to December 2020, when most learners were required to learn remotely, there were differences between primary and secondary schools in relation to the school day (Ofsted, 2020a). Primary schools varied in how they suggested to parents that the remote school day was organised. Secondary schools typically followed the standard timetable (Ofsted, 2020a).

191. In the second period of UK-wide school closures, guidance in England suggested that learners aged five to seven years old should engage in at least three hours of remote learning per day, with learners aged seven to eleven spending four hours and secondary school learners spending at least five hours (Department for Education, 2021b). It was recognised that there needed to be variety however, and that learners should not be expected to be looking at screens all the time (Education Scotland, 2021).

192. The school day was much more structured for learners working from home than it had been in the first period of school closures and attendance recording increased (Taggart *et al.*, 2024).

193. Learning time at home increased across the UK from the first period of school closures to between 26 and 30 hours a week (Blundell *et al.*, 2021; Cattan *et al.*, 2021). Notably, the gap between the time spent learning by advantaged learners and disadvantaged learners that was so notable in the first lockdown had disappeared.

> "*For example, 62% of secondary school learners spent at least 5 hours a day learning remotely during the second period of school closures […], compared with just 38% during the first round of closures*" (Cattan *et al.*, 2021, p. 17).

Curriculum coverage

194. Initially, curriculum coverage varied across schools, with some reducing it for pragmatic reasons (Anderson, 2023; McCluskey, Abaci, *et al.*, 2023) and primary schools generally providing less coverage than secondary schools (Lucas, Nelson and Sims, 2020). In Northern Ireland, some schools that set out to replicate the school day by providing a 'normal timetable' found that they had to 'ease back' due to "*an unsustainable pace for teachers, learners and, especially, parents*" (Anderson, 2023, p. 6), with teachers in England (n=1,821), 80% reporting that "*all or certain areas of the curriculum are currently getting less attention than usual, across many subject areas, including all core curriculum subjects*" (Lucas, Nelson and Sims, 2020, p. 3). This is not surprising given that some content is difficult to teach remotely, such as practical work and that which needs specialist resources, and/or content requiring more extensive guidance from teachers (Lucas, Nelson and Sims, 2020; The Educational Institute of Scotland, 2020; Chapman *et al.*, 2022; McCluskey, Abaci, *et al.*, 2023). For example, in English secondary schools, Arts subjects including Design and Technology were difficult to deliver remotely (Office for National Statistics, 2021). Interviews of 60 Scottish primary headteachers and teachers suggest that "*reinforcement and consolidation of the key areas of literacy, numeracy and health and wellbeing*" were the main priorities initially (Colville *et al.*, 2021, p. 2).

195. Many secondary school leaders in England (46%) reported providing the same (typically reduced) curriculum when in school as that provided to the learners working remotely (Julius and Sims, 2020). The authors suggest that these learners would have had the added benefit of additional support from the teachers supervising them, thus potentially having a better experience than their remote peers. However, just under one-third of primary senior leaders said they were providing learners in school with extra-curricular activities, meaning that they would have been covering less curriculum than their remote peers (Julius and Sims, 2020). Furthermore, there was a difference between advantaged state schools (20% of schools with lowest proportion of pupils eligible for free school meals), which were more likely to deliver the same curriculum in-school as at home (58%) than disadvantaged state schools (35%). Disadvantaged state schools (37%) were more likely than advantaged schools (17%) to provide extra-curricular activities in school instead. That is, in a significant proportion of state schools, learners attending school in person covered less of the curriculum than their peers learning remotely but when covering the curriculum they may have had higher-quality support.

196. Schools had to make decisions locally about the curriculum offer, prioritising what was most important for their learners alongside the demands for managing in-school and remote learning provision. In-school, secondary schools moved to full curriculum coverage over the course of the autumn term, but primary schools typically prioritised reading and mathematics (Ofsted, 2020b). However, learners working remotely were not always covering the same curriculum as their in-school peers (Ofsted, 2020c, 2021a). Challenges remained for the delivery of some curriculum subjects (particularly those requiring practical work) (Ofsted, 2021a).

197. Whilst some practical subjects remained challenging to deliver remotely (CooperGibson Research, 2021), curriculum coverage increased in the second period of school closures (McCluskey, Abaci, *et al.*, 2023).

Learners' participation in (online) remote learning

198. Levels of learner engagement with remote learning varied (Lucas, Nelson and Sims, 2020; The Educational Institute of Scotland, 2020; Ofsted, 2021a; Chapman *et al.*, 2022; Waters-Davies *et al.*, 2022; McCluskey, Abaci, *et al.*, 2023) with some learners flourishing and others struggling to maintain concentration. In a survey of 26,128 of its members, the Educational Institute of Scotland (2020) reported that low learner engagement was the most significant barrier to delivering remote learning (61%). The Office for National Statistics (2020) reported that 52% of parents surveyed from across the UK said that their child was struggling with remote learning at home for reasons including lack of motivation and lack of guidance and support. Teachers in England (n= 1,821) said that they were in regular contact with 60% of learners but that only 42% of learners had submitted work to them when required to do so, a measure of pupil engagement in this study (Lucas, Nelson and Sims, 2020). Similarly, in a study of 140 primary schools in England, learner engagement in Key Stage 1 was perceived to be mixed (Rose *et al.*, 2021). Notably, headteachers felt that disadvantaged learners were the least engaged, with 50% of this cohort perceived to have low or very low levels of engagement, a difference noted elsewhere (e.g.in Scotland, (McCluskey, Abaci, *et al.*, 2023)). This could be for a variety of reasons, including lack of digital access or a lack of digital skills (see above, 'Learners' ability to access online resources or live lessons') but also a lack of parental support (discussed in depth below and related to a wide range of factors, including work responsibilities), a point echoed in research conducted in Wales (Chapman *et al.*, 2022). Other differences reported include high-attaining learners being more engaged than low-attaining learners (Lundie and Law, 2020) and older

learners being more engaged than younger ones (Chapman *et al.*, 2022; McCluskey, Abaci, *et al.*, 2023).

199. Schools adopted a range of strategies to maintain learner engagement. For example, in Wales (Chapman *et al.*, 2022) the most common strategies were maintaining regular contact and providing a schedule for learners to follow. In England, a survey of school leaders (n=798) reported that they had introduced new digital tools and better systems to increase teacher/learner interactions (Ofsted, 2021a).

200. Data on absenteeism from remote learning is limited, likely due to the challenges of collating such data during a period of significant change. A Teacher Tapp survey of secondary teachers in England conducted in early April 2020 suggests that most teachers were receiving work back from their learners but that "many teachers are not getting work back from considerable portions of their classes, with around a quarter (24%) saying that fewer than 1 in 4 children in their class are returning work they have been set" (Cullinane and Montacute, 2020, p. 8). Similarly in England, teachers (n=1,821) reported that fewer than half of learners (42%) had returned their last piece of set work, and this was even lower (around 30%) in the most disadvantaged state schools (20% of schools with highest proportions of pupils eligible for free school meals) (Lucas, Nelson and Sims, 2020).

> "*It is concerning though that senior leaders believe that around one-third of learners (29% to 37%) are not engaging with set work at all*" (Lucas, Nelson and Sims, 2020, p. 8).

201. From August 2020 to December 2021, leaders at most of the schools visited in England by Ofsted in the autumn term (Ofsted, 2020a) said that they were monitoring learner engagement in remote learning, for example through data collected by the digital resources being used. However, the focus was more on attendance and completion of work, with less attention paid to assessment. This is likely due to schools prioritising some tasks over others due to increased workloads associated with managing in-school and remote learning simultaneously. School leaders identified assessment of remote learning as needing further consideration and development (Ofsted, 2021a).

202. When schools were closed to most learners from January 2021 to March 2021, research from Education Scotland (Education Scotland, 2021, p. 7) reflects common experiences across the UK (Nelson, Andrade and Donkin, 2021; Rose *et al.*, 2021): "*Almost all schools report improved engagement levels of children and young people*

in remote learning compared to the previous lockdown. Most schools have developed approaches to monitor levels of engagement and use this information to identify learners not engaging."

203. Improvements in learner engagement were partly attributed to the increase in live lessons (Rose *et al.*, 2021). Teachers also reported a rise in the number of learners submitting work (Nelson, Andrade and Donkin, 2021). However, it was still considered by many teachers that learner engagement in online remote learning was lower than that experienced when teaching in-school (Müller and Goldenberg, 2021).

2.9 Guidance, professional development and quality assurance

204. Education departments, alongside other educational organisations, in all four jurisdictions of course provided lots of guidance in the initial months of the pandemic, initially focusing on closure arrangements. Given the rapidly changing situation, early guidance was not mandatory. For example, in England, there was no prior plan for school closures in such situations (National Audit Office, 2021; Timmins, 2021) and a coherent plan was not established until June 2020 when attention turned to the new academic year beginning in September (National Audit Office, 2021). The National Audit Office review concluded that the Department for Education in England was initially reactive and that it could have acted more quickly than it did (for example, in the actions taken to address the digital divide) (National Audit Office, 2021).

205. In England, the Department for Education published initial guidance on teaching remotely for schools in April 2020, highlighting the resources on offer from BBC Bitesize and Oak National Academy and other resources that might be useful for learning at home (Department for Education, 2020j, 2020f). They also published Guidance on supporting hybrid approaches and exemplars of good practice in May 2020, updated in June 2020 (Department for Education, 2020e). In Northern Ireland, examples include the Education and Training Inspectorate (ETI), which issued guidance for schools on 20 March (The Education and Training Inspectorate, 2020b), including information on safeguarding. The Department of Education in Northern Ireland issued more extensive guidance on supporting remote learning in early June (Department of Education, Northern Ireland, 2020a). The use of pre-recorded video lessons was strongly recommended (Department of Education, Northern Ireland, 2020a). Guidance published by jurisdictions in June/July 2020 was in anticipation of schools reopening and the potential need to support blended learning.

206. Many organisations across the four jurisdictions responded to the needs of teachers by providing online training and resources to support the delivery of online remote learning. For example, in April 2020, the Education Endowment Foundation (2020) published a rapid evidence review of the most effective review of remote learning approaches, highlighting the importance of teaching quality, peer interactions, providing strategies to support learners' independent learning and selecting an approach that suits the task.

207. In Northern Ireland, resources and teacher professional development were offered by the Education Authority (Passey *et al.*, 2023). Teachers also created self-support groups, both locally and more broadly, through the use of social media (Taggart *et al.*, 2024). Social media use was flagged in the guidance from the Education and Training Inspectorate, which noted a new Twitter handle had been set up for teachers in Northern Ireland to exchange ideas and resources around remote learning (The Education and Training Inspectorate, 2020b).

208. In Scotland, digital education specialists at the University of Edinburgh provided weekly online webinars and a week-long online conference to support teachers in primary and secondary education from April to June 2020 (Abaci *et al.*, 2021, p. 29). In the summer of 2020, organisations such as Education Scotland and e-Sgoil came together to develop the National e-Learning Offer, which supported the use of live lessons, provided a repository of educational videos and facilitated professional development for teachers (e-Sgoil, 2021; Scottish Government, 2021a; McCluskey, Abaci, *et al.*, 2023).

209. As in Northern Ireland, 17 of 24 staff in a small-scale study conducted in Wales said that they initially turned to their colleagues for advice and support (Chapman *et al.*, 2022). A small (unspecified) number also reached out to local authority contacts and teacher education partners (Chapman *et al.*, 2022). Perhaps surprisingly, the guidance made available via the Hwb (the national learning platform for Wales) was not referred to by teachers responding to this survey, although this may not be representative of all teachers in Wales (Chapman *et al.*, 2022). Many respondents identified the need for further professional development in digital pedagogy, blended learning and organising learning communities.

210. Formal school inspections across the four jurisdictions were suspended in March 2020 (Estyn, 2020; Hepburn, 2020; The Education and Training Inspectorate, 2020a). In Wales, 'engagement phone calls' were made to a small sample of schools in the summer term, primarily to check on the well-being of staff and learners (Estyn,

2020). It is worth noting that school inspection is often experienced as negative and highly stressful by school staff.

211. Guidance was provided to schools in all four jurisdictions as re-opening began in the autumn term. Schools in England were advised to continue to develop their capacity to deliver education to learners at home and that any remote learning offered should match that provided in-school as closely as possible. Schools in Wales were provided with a wide range of guidance from the Welsh Government, consortia and unions to support a phased return approach and the delivery of blended learning in the autumn term (Welsh Government, 2020c, 2020d).

212. As schools prepared to open fully in the autumn term, the four jurisdictions took different approaches in relation to guidance and advice on curriculum coverage (Mouthaan *et al.*, 2021). England opted for a 'detailed and prescriptive approach' with regular updates and tailored guidance for specific age groups. A more general approach was adopted in Wales and Northern Ireland. A general approach was also adopted by the Scottish Government but:

> "*key aspects of curriculum decision-making and curriculum preparation [were devolved] to local authorities [making] the Scottish response distinct from the other countries*" (Mouthaan *et al.*, 2021, p. 56).

Northern Ireland, Scotland and Wales offered more flexibility for local authorities and schools to adapt/reduce the curriculum according to local needs (Department of Education, Northern Ireland, 2020a; Welsh Government, 2020a). In England, flexibility was approved for learners aged up to age 14, but less flexibility was strongly advocated for those learners nearing the end of schooling and closer to high-stakes assessments (aged 14 to 18) (Mouthaan *et al.*, 2021).

213. Individual schools continued to provide professional development for their staff on remote learning (Ofsted, 2020a; Taggart *et al.*, 2024), often online, which may have offered opportunities for demonstrating good practice. Over the term, there was an increasing focus on digital pedagogy and how best to deliver the curriculum through online remote learning (Ofsted, 2020a).

214. In England, Ofsted announced that interim visits would take place in the autumn term in preparation for potentially returning to full inspections (Ofsted, 2020d). In these light-touch visits, Ofsted inspectors talked to senior leaders about how they were managing the return to in-school teaching, including the provision of remote learning.

Scotland and Northern Ireland continued with the suspension of inspections in the autumn term (Tes, 2020). Wales had already planned to suspend inspections in 2020/21 due to the curriculum changes that were due to be rolled out (Estyn, 2020). They continued to undertake engagement visits (remotely), focusing on schools' responses to the pandemic.

215. Unsurprisingly, much more guidance was provided to schools in advance of and during the second period of school closures than had been provided for the first period (Taggart *et al.*, 2024). In October 2020, the Department for Education in England informed schools that they had a legal responsibility to provide remote education for learners unable to attend school (Department for Education, 2020h). This was not the case in the remaining three jurisdictions. Ofsted also published guidance for teachers on what was working well in remote education (Ofsted, 2021c). The other jurisdictions developed and revised their guidance. Education Scotland published remote learning guidance (Education Scotland, 2021) which outlined key principles and reminded teachers of the National e-Learning Offer. This was updated in December 2021. Local authorities in Scotland also provided guidance for their schools (Education Scotland, 2021). Similarly, guidance on remote learning was provided in Northern Ireland (Department for Education, Northern Ireland, 2021). In Wales, broader guidance on learning provision (including in-school), originally published in July 2020, was updated in 2021 (Welsh Government, 2020c). It included a link to Hwb resources and guidance on blended learning. Professional development modules on Remote Asynchronous Learning Design were also launched in the spring of 2021 (Welsh Government, 2021a). Regional consortia in Wales provided additional guidance for their schools highlighting key principles and good practice (e.g.North Wales school improvement service).

216. Teachers responding to a survey in England noted that the provision of professional development on digital pedagogy, and for specific digital tools, remained inconsistent (Müller and Goldenberg, 2021). Many teachers still felt that they lacked the skills and confidence to deliver online remote learning (CooperGibson Research, 2021).

217. School inspections continued to be paused during this period. In some schools in Scotland, senior leaders were beginning to put in place quality assurance processes for remote learning (Education Scotland, 2021).

2.10 Effectiveness of (online) remote learning

218. There was limited evidence of the effectiveness of remote online learning in school education, particularly for younger learners and those with special needs (Müller and Goldenberg, 2020; Ofsted, 2021c) as the pandemic began. Syntheses of relevant research evidence were disseminated to help inform decision making in schools (Bond, 2020; Education Endowment Foundation, 2020; Müller and Goldenberg, 2020; Ofsted, 2021c).

219. As a result of these syntheses, the importance of teacher-learner interactions and teacher scaffolding and explanations were highlighted, the lack of which can impact negatively on learner motivation, engagement and understanding. For example, in remote mathematics education, limited opportunities for teacher-learner interaction meant that it was harder for teachers to assess learner understanding during teaching and learners missed out on developing their understanding through verbalising their knowledge or listening to peers talk about mathematics (Hodgen *et al.*, 2020). Other important considerations for effective online learning which were highlighted to schools and teachers include collaborative learning and assessment and feedback (Education Endowment Foundation, 2020; Müller and Goldenberg, 2020).

220. During the first period of school closures, the provision of emergency remote learning was not considered to be as effective as 'normal' face-to-face (Howard, Khan and Lockyer, 2021; Office for National Statistics, 2021). It was not carefully planned and initially there was a greater emphasis on independent study using offline resources with lower levels of engagement due to limited interaction with teachers and peers. Schools and teachers were not ready; the development of infrastructure was required to support live lessons and online submission of learners' work; teachers and learners needed to develop their digital skills. Only three in five teachers in England felt confident that they were delivering a high-quality education remotely (Ofsted, 2021a).

221. Learners who had to study remotely during the autumn term in 2020 due to the need to isolate had a lower quality of learning provision than their peers who were in-school. This was due to the challenges of delivering in-school and online learning simultaneously, and limited opportunities for teachers to provide individual support to online learners (Howard, Khan and Lockyer, 2021; Ofsted, 2021a). In addition, the need for NPIs constrained opportunities for classroom interaction and impacted on

some subjects to a greater extent than others (e.g.those needing practical equipment such as science) (Howard, Khan and Lockyer, 2021).

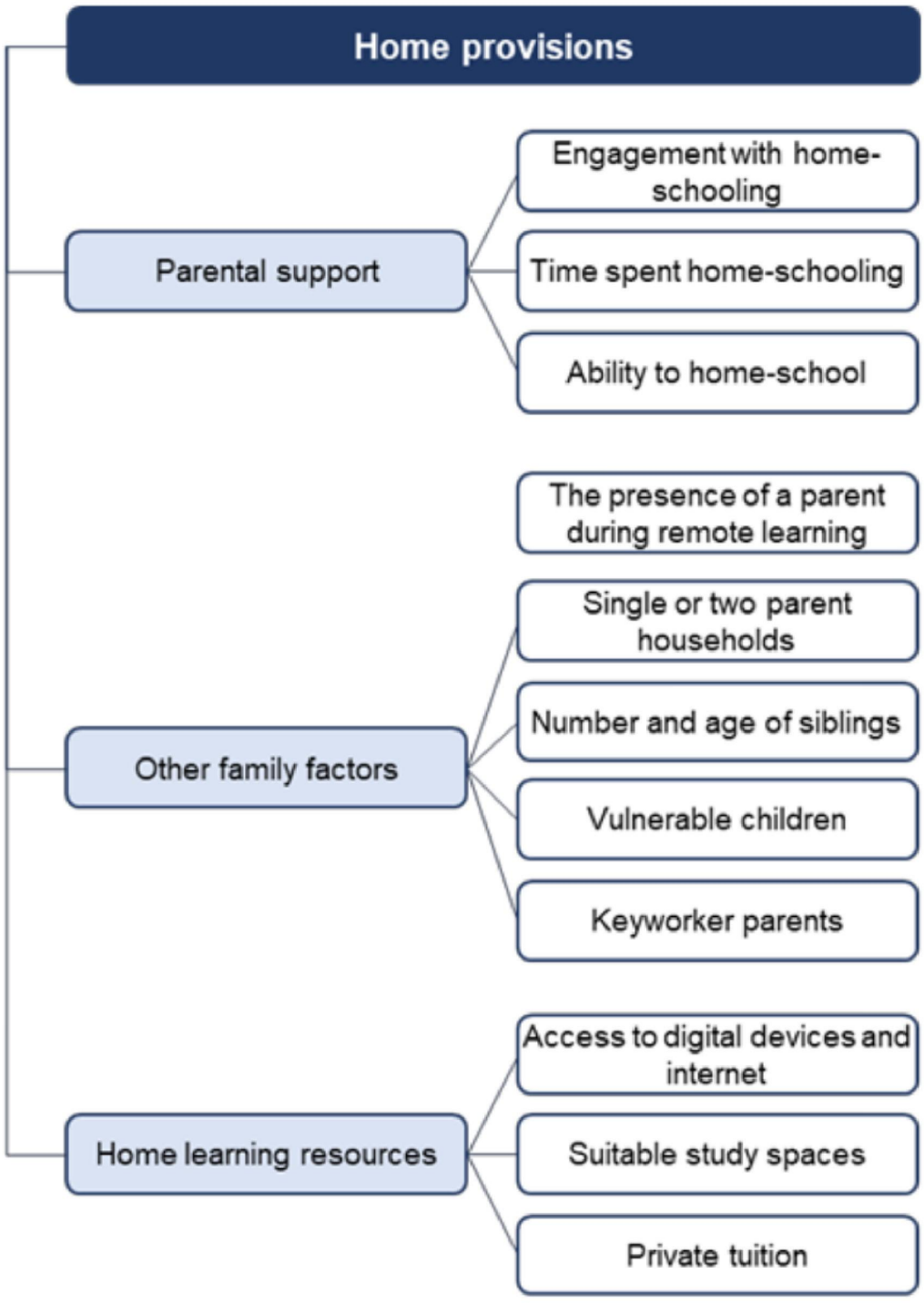
222. Perceived effectiveness of remote learning differed by learner characteristics. As noted throughout this chapter, disadvantaged learners (from the lowest income households) experienced more challenges than advantaged learners. With low-quality access to the technologies required (e.g.having to share a device with a sibling, low-quality connectivity) online remote learning was not as effective for some disadvantaged learners as it was for advantaged learners (Walker *et al.*, 2022). Some teachers also reported that it was less effective for learners who are not self-motivated (Walker *et al.*, 2022). Teachers surveyed in 2021 perceived that it was best to teach primary-aged learners using pre-made videos and paper-based resources, avoiding live lessons and opportunities for interaction (Müller and Goldenberg, 2021).

223. Although the use of live lessons was considered important for learner engagement, they were not considered by everyone to be as effective as face-to-face lessons, particularly in secondary schools, due to school and staff concerns about privacy and safeguarding, which meant that learners didn't always have their camera on for example (Walker *et al.*, 2022). However, over one third of teachers surveyed in 2021 (38%) felt that their students had made as much progress as they would have done in-school although over half of the respondents felt that their students were less engaged when learning remotely compared to in-school (Müller and Goldenberg, 2021).

2.11 Home environment for remote learning

224. Home learning was stressful for some, especially when learning new concepts. Maintaining motivation levels was difficult for many, although some learners enjoyed the greater opportunities for self-directed learning (McCluskey, Abaci, *et al.*, 2023). As illustrated in Figure 9 below, a range of factors influenced learners' experiences of learning remotely. These included parental support, other family factors, such as parental work responsibilities and the presence of very young children, and home learning resources, including digital devices and study spaces. We refer to parents in this section but acknowledge that the role of supporting a learner at home may have been undertaken by another adult in the household (a carer or a relative for example), or by an older sibling.

Figure 9: A summary of the home features that have influenced learning during the pandemic



Source: Adapted from (Howard, Khan and Lockyer, 2021, p. 41).

Parental support

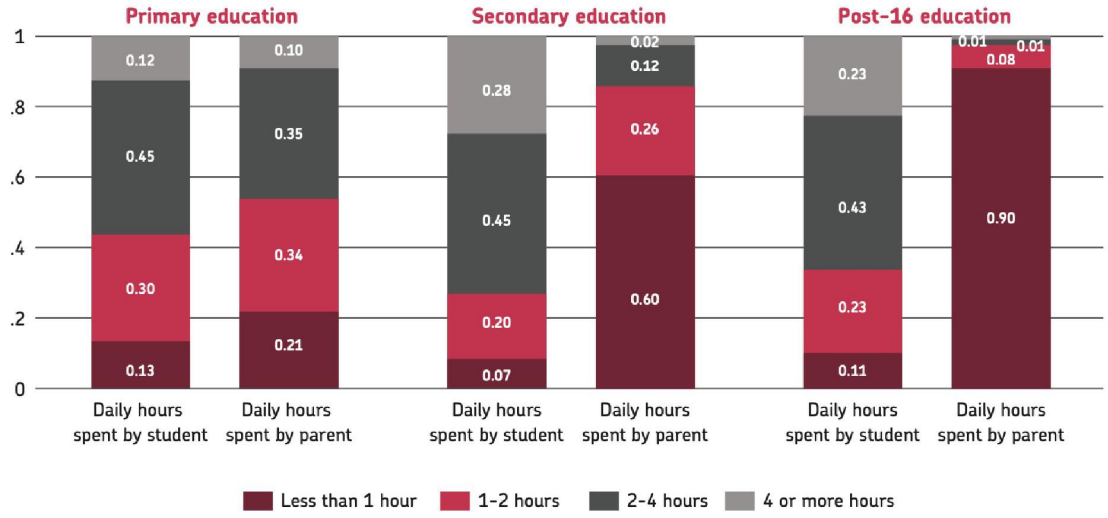
225. Parental support during the pandemic includes the time parents spent supporting learners and their ability to do so, parental engagement, whether parents were keyworkers, and more general parental presence during remote learning.

Time spent by parents in home schooling

226. During periods of school and college closures, parents took on more responsibility to support their children's learning at home than they had done prior to the pandemic (Howard, Khan and Lockyer, 2021). Across the UK, parents spent an average of 21 hours per week on childcare and home schooling combined (Benzeval *et al.*, 2020). A variety of factors influenced the time parents had available to do so.

227. Unsurprisingly, the amount of time parents spent actively helping their children with schoolwork varied depending on the age of the child, with parents spending considerably longer actively helping younger learners compared to older learners. This is illustrated in Figure 10 below, based on data collected in April 2020 (Benzeval *et al.*, 2020). For example, 45% of parents reported helping primary school learners for two or more hours every day, compared with only 14% for secondary school learners. Another study (Del Bono *et al.*, 2021) suggests that UK parents of primary school children spent on average 1.9 hours a day helping with their schoolwork but 25% said that they helped for less than an hour a day and 8% reported spending four or more hours a day. Parents of secondary school children spent on average 0.8 hours a day helping with their schoolwork. Of these parents, 40% reported helping their child for less than one hour a day whilst 6% suggested that they spent four or more hours daily.

Figure 10: Time spent on home schooling by phase of education: daily hours spent on schoolwork by learners and parents by phase of education (proportion of learners) (n=3680 parents)



Notes: Average daily hours spent on schoolwork by students and parents, respectively. The figure uses answers provided by the mother if available; by the father if mother's answers were not available; by another family member if both mother's and father's answers were not available. The sample includes students matched to the annual Understanding Society survey and with non-missing basic characteristics. Weighted results. N=3680

Source: Benzeval et al. (2020, p. 13).

228. Overall, UK parental time spent on home schooling did not differ by indicators of socio-economic background or ethnicity (Del Bono et al., 2021) or by the parents' educational background (Benzeval *et al.*, 2020) or whether the learner had a single parent or not (Howard, Khan and Lockyer, 2021).

229. Parental presence at home and ability to assist with home schooling was affected by the work status of learners' parents (Benzeval et al., 2020). This included whether they were employed, on furlough, or worked part time. For example, mothers spent an average of 21 hours compared to 12 hours by fathers on childcare and home schooling per week (Benzeval et al., 2020). This survey also reported that mothers who were employed and not on furlough spent an average of 18 hours per week on childcare and home schooling while fathers who were employed and not on furlough spent an average of 10 hours per week on childcare and home schooling. When fathers were furloughed they spent appreciably more time on childcare and home schooling; an average of 17 hours compared with 20 hours by mothers (Benzeval *et al.*, 2020). Keyworker parent status was a family factor affecting home learning

provision (Howard, Khan and Lockyer, 2021). In Northern Ireland for example, parents who were keyworkers were less likely to engage directly in teaching (20.09%) or actively supporting (50.44%) their children's learning compared to those working from home (Walsh *et al.*, 2020).

230. Parents spent slightly more time overall actively helping boys than girls (Benzeval *et al.*, 2020). The survey found parents helped boys less often for very short durations (less than one hour) and helped them with home schooling for longer durations (1-2 hours) more often than girls.

231. For fathers, there were no significant differences in the amount of time spent on childcare or home schooling depending on their education (Benzeval *et al.*, 2020). However, highly educated mothers spent six hours more doing childcare and home schooling per week than mothers whose highest qualification was GCSE or lower (Benzeval *et al.*, 2020).

232. Demands on parents' time to support their children were also influenced by the kinds of activities that their children engaged in. An IFS report suggests that passive resources (like offline materials, such as home learning packs and schoolwork set on online platforms or by email) may have required more parental input than active ones (like live online lessons). While passive resources may have been more widely accessible, they put further pressure on parents who already faced time constraints (Andrew, Cattan, Dias, *et al.*, 2020).

233. There is limited evidence on the differences by jurisdiction. Overall, the average time spent by parents in England and Wales on childcare and home schooling was 21 hours per week compared to 20 hours in Scotland and 18 hours in Northern Ireland (Benzeval *et al.*, 2020).

234. Qualitative evidence from studies with parents of children and young people with additional support needs suggests these parents spent a great deal of time and energy filtering, adapting, preparing, and 'translating' online resources for their children (McCluskey, Fyfe, *et al.*, 2023a).

Parental ability and confidence in supporting their children

235. Parental education level had a significant impact on parents' confidence to deliver home schooling, where parents with higher education levels tending to feel more confident and likely to be more involved in home schooling (Walsh *et al.*, 2020; Howard, Khan and Lockyer, 2021; Miller, Keenan and Early, 2022). For example, in

Northern Ireland, parents educated to university level were almost four times more likely to feel confident about supporting their children whilst less well-educated parents were much more likely to simply 'monitor' their child's learning (Walsh *et al.*, 2020). In this study, the highest educated respondents were most likely to adopt a proactive role in their children's home-schooling (Walsh *et al.*, 2021). Similarly, in England, parents with graduate degrees reported feeling more confident compared with non-graduate parents (Howard, Khan and Lockyer, 2021). The figures show that 70% of graduate parents felt confident compared to 60% of non-graduate parents (Howard, Khan and Lockyer, 2021). While time commitment might not differ significantly based on parental education level (as discussed above), the perceived ability or confidence does (Walsh *et al.*, 2020; Howard, Khan and Lockyer, 2021; Miller, Keenan and Early, 2022).

236. Parents in lower-income households found it more challenging to support their children with schoolwork than parents in higher-income households (Del Bono *et al.*, 2021). Generally, parents from more deprived families found it difficult to support their children due to more limited access to resources (Andrew, Cattan, Costa Dias, *et al.*, 2020). For example, in Northern Ireland, concerns were raised that those from low-income households experienced worse mental and physical health impacts, and digital poverty (lack of devices, printers, broadband) (Miller, Keenan and Early, 2022), which could indirectly affect the ease or perceived ability to support learning.

237. Many parents faced problems in trying to match the different skill-sets required to support learning at home. There was a perceived lack of subject-specific knowledge or teaching skill in certain areas (Cahoon, McGill and Simms, 2021). Parents reported needing support on how to teach certain topics, particularly in maths and numeracy (Cahoon, McGill and Simms, 2021; Howard, Khan and Lockyer, 2021). Potential reasons cited include limited parental mathematical content knowledge and lack of mathematical confidence (Cahoon, McGill and Simms, 2021). Similarly, challenges with technology were also reported, particularly in relation to parental digital skills. In Northern Ireland, parents' digital skills played a role in their ability to home-school during the pandemic. Survey data from Northern Ireland indicates that parental comfort or proficiency with digital tools was relevant to supporting home learning (Walsh *et al.*, 2020). A significant majority of respondents, 80.29% (n=1634), reported that their school provided instruction on how to help children access online resources (Walsh *et al.*, 2020), suggesting a widespread need for this type of guidance related to digital navigation and access (Walsh *et al.*, 2020). The explicit

requests for and provision of instruction on accessing online materials point to varying levels of digital literacy among parents (Walsh *et al.*, 2020).

238. There was little national support available to families to help with their children's behaviour management during lockdown and over home learning and remote lessons. Many parents reported issues with behavioural problems as a barrier to home schooling, arising from factors like lack of a home routine or home distractions (Waters-Davies *et al.*, 2022; McCluskey, Abaci, *et al.*, 2023). While some schools provided parents with behaviour management strategies and more general support, like guidance on routine (Walsh *et al.*, 2020; Ofsted, 2021c), resources (Walsh *et al.*, 2020; Howard *et al.*, 2021; Miller, Keenan and Early, 2022) and pastoral care (Walsh *et al.*, 2020; Ofsted, 2021a; Miller, Keenan and Early, 2022), very little is documented about national awareness of these behavioural issues, and how far they impacted on the ability of children to access home schooling, and on parents to deliver it.

Resources for home learning

239. Across the pandemic, the availability of adequate resources for learning (both digital and physical) and access to a quiet space to work was a concern, particularly for learners from lower socio-economic backgrounds (Cahoon, McGill and Simms, 2021; Cattan *et al.*, 2021).

Learners' ability to access online resources or live lessons

240. The initial school closures in March 2020 immediately highlighted concerns about inequality in access to learning due to the digital divide (Cullinane and Montacute, 2020; T. Coleman, 2021). As noted in Chapter 1, not all learners across the UK had access to a suitable device and/or the internet to undertake online and remote learning (e.g. Benzeval et al. (2020); Ofcom (2020)). Insufficient access particularly impacted the most disadvantaged learners. Rapid evidence reviews on the extent of disparities in April revealed that one in five children eligible for Free School Meals (FSM) across the UK had no access to a computer at home (Green, 2020). In England, 15% of teachers in the most deprived state schools (20% of schools with the *highest* proportions of learners eligible for free school meals) reported that over a third of their students lacked adequate access to an electronic device for home learning, compared to only 2% in the most affluently populated state schools (20% of schools with the *lowest* proportions of learners eligible for free school meals) (Cullinane and Montacute, 2020) with similar disparities in online access noted. Furthermore, 42% of teachers at private schools said that all students had adequate

home access to digital technology for learning compared to just 2% in the most deprived state schools (Cullinane and Montacute, 2020). The Institute for Fiscal Studies (IFS) found that less than two-thirds of learners in England had access to a computer or tablet whenever they needed it for schoolwork in April/May 2020, and that 72% of the richest fifth of students had access to a device at the start of the pandemic, compared to 62% of the poorest (Cattan *et al.*, 2021).

241. Over the summer term, each of the four UK jurisdictions made significant efforts to provide digital devices to disadvantaged and vulnerable learners who did not have the necessary home equipment to access online learning materials (Sibieta and Cottell, 2020). They began announcing various schemes to support access to remote learning, largely focusing on providing devices and internet connections (T. Coleman, 2021). The speed and focus of these policies differed across the UK with England and Wales initiating schemes more quickly than Northern Ireland and Wales (Sibieta and Cottell, 2020). Wales, acting in April 2020, was able to move quickly by building on existing digital inclusion policies and infrastructure. England also acted in April but delivery took longer than anticipated. Northern Ireland and Scotland announced schemes in May 2020.

242. In England, on 19 April 2020 (and initially until June 2021), the Department for Education launched a scheme to 'get help with technology for remote education' (Department for Education, 2020b), offering devices (including laptops and tablets) and internet access to disadvantaged children (Department for Education, 2020d) who were unable to access remote education easily (e.g.without digital devices, with only a smartphone, sharing a device, without the internet). The scheme applied to pupil referral units, maintained schools, hospital schools, academy trusts, and further education/sixth-form colleges with 14 to 16 year olds. Digital equipment funded through the scheme was sent out to local authorities and academy trusts by the end of June 2020 to distribute to disadvantaged learners, providing 2.6% of learners with laptops (just over 200,000) and 0.6% with 4G routers (about 47,000) (Sibieta and Cottell, 2020). The department assumed that schools already had a number of devices available (estimated to be an average of 182 in secondary schools and 76 in primary schools) that could be loaned or gifted to pupils so it is likely that more learners benefited from this support beyond the department's scheme (Sibieta and Cottell, 2020). Distribution by mid/late June potentially limited this scheme's impact, with some learners potentially having only a few weeks of access to the devices before the end of the summer term (Sibieta and Cottell, 2020). Over the course of the

pandemic, some local councils (e.g. the City of Westminster) began their own initiatives to address digital exclusion in local areas (T. Coleman, 2021).

243. The Department of Education in Northern Ireland outlined plans in May 2020 to loan devices to disadvantaged children requiring them for remote learning (prioritising learners in year groups preparing for formal assessments), with an initial batch of 3,000 laptops distributed in June 2020 (without internet access), and more made available in August (with internet access) (Sibieta and Cottell, 2020).

244. An initial 25,000 devices and 4G dongles were procured by the Scottish Government at a cost of £9m in late Spring 2020 (Scottish Government, 2020g). Those devices were distributed to councils and subsequently by them to learners from August 2020. The timing of the first phase of laptop delivery in Scotland (from August 2020, in time for the new academic year) potentially limited access to online materials for disadvantaged learners during the initial lockdown (Sibieta and Cottell, 2020). Councils were also provided with additional funding in the 2020/21 financial year, ring-fenced for devices and connectivity. From August 2020, councils procured, distributed and managed both devices and connectivity solutions based on local need. In total, nearly £24m of funding provided for 72,000 devices and 14,000 connectivity packages for learners (Scottish Government, 2023c).

245. The Welsh Government pledged up to £3 million in April 2020 (Sibieta and Cottell, 2020) as part of the 'Stay Safe, Stay Learning' program. This enabled local authorities to provide 'digitally excluded' learners with repurposed stocks of existing laptops and new 4G MiFi internet devices (Welsh Government, 2020b), covering 2.7% of learners by the end of May 2020 .

246. There was also a national effort to improve access to digital skills, with a number of organisations offering online courses (Parliamentary Office of Science and Technology *et al.*, 2020). Good Things Foundation offered online resources to improve basic digital skills, including 'Learn My Way' and 'Make it Click' courses, and launched a new resource: 'Using the internet to get ready for coronavirus' (Parliamentary Office of Science and Technology *et al.*, 2020). The UK Government announced £8 million funding in September 2020 for digital skills 'boot camps', expanding on trials in the West Midlands and Greater Manchester (Parliamentary Office of Science and Technology *et al.*, 2020).

247. Despite these efforts, a digital divide persisted over the summer of 2020 across and within schools. The Institute of Fiscal Studies compared data collected in England

from Wave 1 (April/May 2020, n=4,316 parents) to Wave 2 (June/July 2020, n=927 parents), finding that most children had the same access to resources in June/July as they had had in April/May, although secondary students' access to a tablet or computer when they needed it rose by 10% (Cattan *et al.*, 2021)). The digital divide continued to negatively impact disadvantaged learners to a greater extent. In primary and secondary schools surveyed by the National Foundation for Educational Research (NFER) in England in May 2020, teachers from the most deprived state schools (20% of schools with the *highest* proportions of learners eligible for free school meals) reported that 39% of their learners had limited or no access to digital technology compared to 19% in the least deprived schools (20% of schools with the *lowest* proportions of learners eligible for free school meals) (Lucas, Nelson and Sims, 2020). Schools were aware of individual learners facing challenges, such as limited access, and sought to provide different educational arrangements to mitigate these gaps (T. Coleman, 2021). Drawing on the same NFER dataset, 84% of schools relied on providing supplementary physical resource packs, such as print-outs and worksheets, to their vulnerable remote learners; this practice that was higher in the most deprived schools (88%) compared to the least (73%) and higher in primary (84%) than in secondary schools (77%) (Julius and Sims, 2020).

248. Disparities in learners' access to remote learning continued over the autumn term (Ofsted, 2020f). There was further evidence of continuing digital access needs over this time. In England for example, the government committed to distributing further devices for the 2020 to 2021 school year to disadvantaged children experiencing disruption or needing to shield. By 18 December, 341,869 additional devices had been dispatched and in early January 2021 139,805 devices were also dispatched as the next national lockdown began (Department for Education, 2020c, 2021c). The government also partnered with mobile operators to provide free data to disadvantaged learners during this period.

249. The announcement of national lockdowns with school closures in all four jurisdictions by 5 January 2021 led to a renewed and more intensive period of remote education, relying heavily on digital technology (T. Coleman, 2021).

250. In England, the Department for Education announced even further support for devices and technology to address disparities in access (Cambridge, 2020a; Parliamentary Office of Science and Technology *et al.*, 2020; T. Coleman, 2021). As of 14 February 2021, 1,055,700 devices had been delivered or dispatched, along with 68,600 routers (Roberts and Danechi, 2022). By March 2021, over 1.3 million

laptops and tablets had been provided to disadvantaged learners to access remote education (Pensiero, Kelly and Bokhove, 2021). In addition to the 4G wireless routers sent to Academy Trusts and local authorities in the summer term, further support was made available to disadvantaged children to access the internet (including mobile internet) (Pensiero, Kelly and Bokhove, 2021).

251. In Wales, despite funding being prioritised early in the pandemic, a report from the Children's Commissioner for Wales in January 2021 highlighted that a digital divide remained, although its significance varied between schools and colleges (Children's Commissioner for Wales, 2021). Their survey of 167 headteachers in Wales in January 2021 showed that, in more than half of settings, over 90% of learners had access to a digital device, and in one-quarter of schools, all learners reported having access, but 12% of schools had at least 20% of learners without access. Colleges reported a range of 0 to 20% of learners without access to devices. In more than 52% of schools and colleges, there were some households without access to the internet, and in 46%, there were some households with insufficient data allowances. 42% of settings did not have enough devices, and it was also common to have shared, rather than exclusive, access to a device, with more than half of learners sharing access in 36% of schools or colleges (Children's Commissioner for Wales, 2021). Many other barriers were identified, often felt to be as important as direct access to a device and internet. These included social barriers, such as low family engagement, and low confidence, skills and time amongst parents to support their children in remote learning, issues in lack of space and time for families to have all their children learning at once via 'live' lessons, as well as a commonly reported lack of contact from families with the school, occurring in 49% of settings, with some families reported to not engage at all in online learning (Children's Commissioner for Wales, 2021). While heads found some success in using a mix of pre-prepared and live lessons to accommodate sharing of devices, frustration persisted from schools regarding the supply of devices, which was slow compared with advances in England, and not meeting needs identified 'many months before'. There were similar concerns over data poverty, with learners in families sharing limited data from mobile devices, and calls for certain educational websites (e.g. Google G Suite, Google Classroom) to be exempt from mobile data caps over the pandemic, aligning with progress in England. The Commissioner urged longer-term improvements in connectivity, device access, and digital skills for parents and carers (Children's Commissioner for Wales, 2021).

252. In Scotland and Northern Ireland, the provision of devices continued throughout the second lockdown, suggesting continued disparities in access. In Scotland, as schools were moved to online teaching until 22 February 2021 when primary and secondary schools began to reopen for some year groups (Pensiero, Kelly and Bokhove, 2021), the delivery of digital devices continued to meet ongoing needs, with £30 million made available to provide devices (laptops) to disadvantaged children and young people (T. Coleman, 2021). Similarly, in Northern Ireland, as schools began a staggered reopening on 22 March 2021, the laptop scheme for students in key year groups and vulnerable categories (including Free School Meals eligibility) continued (T. Coleman, 2021).

253. At a UK-level, over this period, multiple sources reported increased impact of inadequate device and internet access, due to the increased prevalence of live lessons (Children's Commissioner for Wales, 2021; Montacute and Cullinane, 2021; T. Coleman, 2021). According to Cambridge Assessment:

> "*the increased use of digital remote education practices in January 2021, particularly live methods such as videoconferencing, may have led to increased digital exclusion due to an increased demand for device access and quality internet*" (T. Coleman, 2021, p. 32).

Similarly, the digital divide between students in private and state schools concerning device access widened during this period, where access to devices improved amongst private school students, and did not amongst state school students (Montacute and Cullinane, 2021; T. Coleman, 2021). In January 2021, the Sutton Trust reported that over half of teachers in the most deprived secondary schools felt that lack of access to devices was a problem, compared with just 10% of private school teachers (Montacute and Cullinane, 2021). This research highlighted the continued school-level digital divide, with private schools reporting fewer challenges around digital access, and less impact on students' engagement in learning (T. Coleman, 2021).

Physical resources

254. A May/June 2020 survey of over 45,000 participants (teachers, parents, learners) across 277 English schools, suggested that around one-quarter of both primary and secondary learners lacked access to printed resources, such as the books they would use at school, and one in five learners also lacked access to a printer at home (Parkin *et al.*, 2020). This was noted as a potential issue, particularly for primary

school children who might prefer working with paper and pencil (Cahoon, McGill and Simms, 2021). Teachers recognised the importance of providing physical resources like stationery and curriculum resource packs, especially for learners facing difficulties with online learning, with just over 50% of teachers in both primaries and secondaries supporting this (Cullinane and Montacute, 2020).

255. Notably, compared to digital device and internet provision, there is less evidence regarding the specific provision of physical resources across the UK nations over time.

256. In England, some schools proactively used their own resources to support the curriculum by delivering physical materials to learners' homes. Examples include art materials like water-colouring packs and music equipment (Ofsted, 2021a). Local authorities in England played a role in providing general learning resources, such as Cambridgeshire County Council's summer learning packs for various age groups (Cambridge, 2020a).

257. The Department for Education guidance on remote education acknowledged the need to mitigate potential digital barriers by supplementing digital provision with other forms of remote education, such as printed resources and textbooks (Department for Education, 2020h; Pensiero, Kelly and Bokhove, 2021). Government guidance went further with the full opening of schools, mandating that schools must provide printed resources, such as textbooks and workbooks, for learners who do not have suitable online access (Department for Education, 2020h). This suggests a formal expectation was placed on schools to provide these resources where needed. Teacher surveys indicated that providing less well-off families with stationery and curriculum resource packs was considered a key strategy to help learners who had difficulties accessing learning online (Cullinane and Montacute, 2020).

258. The Welsh Government took a centralised approach and worked with various organisations, including universities, regional consortia, colleges, Careers Wales and others to create learning resources and guidance for schools, parents/carers and learners in learning material provision. This included subject-based resources, support for preparation for ongoing education, and general skills (Cambridge, 2020a). While the extent of support available, and its precise nature, was not always specified, stakeholders in Wales called for a continued commitment to non-digital learning solutions to help counter educational inequality (Cambridge, 2020a), suggesting an ongoing need for physical learning materials across the pandemic, that may not have always been met.

259. The Scottish Government, through Education Scotland, developed a bank of learning materials that were available nationally (Cambridge, 2020a). These included learning activities and weekly newsletters for parents/carers, which could have involved printable content or ideas for offline activities, although the explicit provision of physical resources by schools or the government is not detailed. Again, the majority of resources that were provided in Scotland relied on digital access, including access to a device, reliable internet connection, and a printer.

260. There is little documented evidence of the extent of Northern Ireland's physical resource provision for learners. The focus on learning resource research is primarily on digital access, with little specific information regarding the provision of physical learning resources like stationery, exercise books, or reading materials.

Suitable home study space

261. Over the pandemic, poor housing conditions and poverty (often interlinked) were a highly significant factor affecting children's ability to learn and their educational attainment (Howard, Khan and Lockyer, 2021). A particular concern in terms of home environment was a lack of space. Many deprived learners were hindered by not having a quiet space to study at home (Howard, Khan and Lockyer, 2021; Waters-Davies *et al.*, 2022), where they 'may live in small houses with no suitable place to do their schoolwork without distraction' (Bayrakdar and Guveli, 2023). This was particularly problematic for learners facing socio-economic disadvantage (Howard, Khan and Lockyer, 2021). The most commonly reported reasons for lack of space were overcrowding, the small size of housing, or a combination of both (Howard, Khan and Lockyer, 2021; T. Coleman, 2021). In 2020, the National Housing Federation reported that 1.6 million children in the UK were living in overcrowded homes (2020). While one study identified no association between socio-economic status and access to a dedicated desk (Cahoon, McGill and Simms, 2021), multiple reports indicate that access to a suitable space for study, dependent on family income, was not equally available (Howard, Khan and Lockyer, 2021; T. Coleman, 2021; Waters-Davies *et al.*, 2022). Further, the Scottish Covid-19 Inquiry highlights substantial international evidence showing that learners' living arrangements during the pandemic significantly impacted their ability to learn, specifically noting that having no study space or too much noise caused greater disruption compared to those with better living arrangements (McCluskey, Abaci, *et al.*, 2023). That is, irrespective of the quality of remote learning provided by schools, some

disadvantaged children will not have engaged as fully as their more advantaged peers due to lack of a suitable home study space.

262. During the COVID-19 pandemic, access to private tuition in England and the UK showed clear disparities based on socio-economic status. In England during the first lockdown, uptake of paid tuition was relatively low, with only 4% of primary students and 5% of secondary students spending any time with a paid tutor weekly (Howard, Khan and Lockyer, 2021). However, later data from the UK indicated that around 8% of children overall were accessing private tuition, and 10% of parents reported paying for it (Montacute and Cullinane, 2021). Access was significantly more common among wealthier families (Cullinane and Montacute, 2020). Middle-class households in the UK were almost twice as likely to pay for private tutoring compared to working-class parents (13% vs 7%) (Montacute and Cullinane, 2021). For households earning over £100,000 per year in the UK, a quarter (25%) of children were receiving some form of tuition (Cullinane and Montacute, 2020). Parents accessed private tuition as a key way to support their children's learning during school closures and disruption (Cullinane and Montacute, 2020), with their financial ability determining their access to this resource (Cullinane and Montacute, 2020; Montacute, 2020).

2.12 Summary

263. Socio-economic inequalities relating to attendance and absenteeism were exacerbated by the pandemic across the UK. Allowing children of keyworkers and children considered 'vulnerable' to attend school in-person only led to a small uptake. This may have been exacerbated by confusion about eligibility, parental concerns about the risks associated with in-person attendance, and provision not being appropriate or adequate to support the needs of eligible learners. The impacts of some NPIs were far-reaching (for example, school closures affecting most children) and often had unequal effects on the delivery of education (for example, mask wearing, which increased communication difficulties for deaf learners). It is recognised that the need to reduce transmission was paramount, but this was in tension with the need to maintain education and social support for children and young people.

264. The key theme throughout for schools in relation to the provision of remote learning was wide variation, with the most disadvantaged learners less likely to access online remote learning and higher-quality provision, such as live lessons and digital tools

that provide immediate feedback. Schools developed their infrastructure, practices and knowledge about digital pedagogy over the course of the pandemic. Similarly, government guidance and support developed over time, with differences between the four jurisdictions.

265. Initially, 'live lessons' were not commonplace, particularly in state schools. Learners spent less time learning as schools, teachers, learners and parents adjusted to the significant changes in provision and dealt with other challenges such as caring responsibilities. In the autumn term of 2020, schools and teachers had to contend with groups of learners and individuals isolating, which created additional demands and increased workload. Live lessons were often provided when groups were out of school, but when individuals were not able to attend, they were typically given a two-week package of digital and non-digital resources to work through themselves. Secondary school learners were more likely to work to a similar timetable to their in-school peers; there was variation in guidance for remote learning for primary school learners. In the second period of school closures (for most learners), live lessons increased, more so in secondary schools than in primary schools, and there was more structure for learners, driven in part by government guidance (most notably in England, which was more prescriptive). Learners spent more time learning, at similar levels to when in school, and curriculum coverage increased, although challenges remained in relation to subjects that required practical work. Learners were engaging more with remote learning and schools were monitoring this more systematically than they had done previously.

266. Parents across the UK took on increased responsibility for directly supporting their children's education during school closures. The amount of time parents spent actively helping varied considerably, particularly based on the age of the child, with more time dedicated to primary learners than secondary learners. Factors influencing the amount and quality of parental support included parental role, parental education level, and importantly, parental employment status. Key workers, for example, were less likely to actively support their child's learning compared to those working from home. Parental presence at home was linked to a greater volume of remote learning. Many parents found supporting their child's learning challenging and lacked confidence. Parental ability and confidence were strongly associated with factors like educational background and income levels. Parents reported needing help with specific skills, such as teaching mathematics and navigating online resources. While socio-economic background and ethnicity generally had less impact on the amount of time spent, they were linked to perceived challenges and confidence.

267. The Covid-19 pandemic significantly exposed and exacerbated the digital divide in the UK. While government initiatives across all four nations aimed to provide devices and internet access to disadvantaged learners, the initial response varied in speed and scale. Persistent disparities remained throughout the pandemic, particularly between learners from different socio-economic backgrounds and between state and private schools, especially regarding access to suitable devices, reliable internet, and interactive online learning experiences like live lessons. The move towards increased reliance on digital education practices has highlighted the urgent need to address the multifaceted nature of digital exclusion to ensure equitable access to learning opportunities for all children in the UK (Parliamentary Office of Science and Technology *et al.*, 2020; Children's Commissioner for Wales, 2021; T. Coleman, 2021).

268. While the importance of physical learning resources was acknowledged and some initiatives were taken by schools and local authorities (particularly in England), the provision of these resources seems to have been less centrally coordinated and less comprehensively documented in the literature compared to the efforts to bridge the digital divide. The lack of access to basic printed materials remained a concern for a significant number of learners.

269. During the pandemic, poor housing conditions and poverty were highly significant factors affecting both children's ability to learn and their educational attainment. While the impact of home environment on learning was previously known, it had far deeper consequences when schools were closed. A crucial concern in the home environment was a lack of space. Many disadvantaged learners were hindered by not having a quiet place to study at home, often due to living in small or overcrowded houses. Overcrowding significantly impacted the ability to find study space, affecting noise levels, access to resources, and distraction levels. In 2020, an estimated 1.6 million children in the UK lived in overcrowded homes. A lack of a suitable place to study at home creates a further divide between advantaged and disadvantaged learners when remote learning is necessary.

270. Overall, learners of all ages and different socio-economic backgrounds, from across the four jurisdictions, had very different experiences. Those differences arising between secondary schools and primary schools are to some degree understandable; for example, younger learners are less able to work independently. Most notably, disadvantaged learners typically had the lowest-quality experiences. This was due in part to the digital divide, which lessened over time but persisted

throughout the pandemic, alongside other challenges, such as a lack of a suitable space to study.

Chapter 3. The impacts of the pandemic on learning and attainment

Summary of impacts of the pandemic on learning and instruction

This chapter of the report first describes how the four UK governments approached the need to monitor and assess the ongoing impacts of school closure on attainment during the period of the pandemic. It therefore focuses on the period between March 2020 and 28 June 2022, the Inquiry's 'specified period'. This is followed by a detailed account of the impacts themselves, taking into consideration both learning and attainment.

During the pandemic, all UK jurisdictions cancelled national exams and put in place alternative assessments to monitor the impacts of school closures on attainment, relying on their existing data collection and analysis systems, but also on developed or commissioned new research collaborations and policy evaluations to address the challenges imposed by the pandemic. Despite an increase in performance outcomes in some areas, the impacts of the pandemic on children's learning and attainment were broad and deep, affecting students academically (related to the formal curriculum, testing and assessment) as well as personally and socially (relating to developmental milestones, social skills and interactions, mental health and wellbeing). The pandemic and associated school closures and restrictions affected various groups of learners in specific ways, including those starting school, those experiencing transitions from primary to secondary school, those who were due to take national exam qualifications and school leavers. In addition, specific groups of learners were affected more: including those from specific ethnic backgrounds, those with special needs and those already being educated at home before the pandemic. Poverty remained the single most important determinant of experiences and outcomes and where it combined with other factors, negative impacts were often exacerbated.

Although we cannot yet fully predict the longevity or severity of these effects, evidence from a range of sources, both UK and international, strongly points to the need to understand, assess and evaluate impacts as thoroughly and comprehensively as possible at this point, so that educational resources, interventions, and mitigations can have the best chance of helping recovery.

3.1. Approaches to monitoring and assessing the impact of school closures on attainment across the UK

271. During the pandemic, the leaders of all four jurisdictions recognised the need to monitor the impact of school closures on educational attainment. Many of the monitoring strategies were broadly similar across the UK and all governments drew on existing national datasets and analysis alongside new, specially commissioned data collection, research studies and policy evaluations.

272. While there were commonalities in approach across the UK, there were also some differences, and these are outlined below. These differences reflect in part the size of learner populations in each jurisdiction, as well as historical differences in collation of administrative data on education within each jurisdiction. England, for example, collects, collates and publishes a wide range of statistical data on attainment and related matters, disaggregated at national, regional and local authority level and on the basis of, for example, age, school stage, sex, disadvantage, special needs and ethnicity. On the other hand, such detailed data available on schools and learners in Northern Ireland is generally much more limited. This report has drawn its conclusions from a large body of work including exploratory studies, implementation and process evaluations, and surveys. Some of this work is still ongoing, e.g., secondary data analysis of effects of Education Endowment Foundation funded interventions on protection from Covid-19 learning loss, due to report in autumn 2025.

England

273. During 2020 and 2021, all key stage standard assessment tests (SATs) in primary schools were cancelled. Phonics screening checks were cancelled in 2020 and 2021. Primary schools were due to introduce the first mandatory multiplication tables check in 2020, but this was also postponed that year, though this check has now been running normally since 2022. GCSEs and A-Levels examinations were all cancelled in 2020 and 2021 and replaced with centre-assessed grades in 2020 and teacher-assessed grades in 2021. In 2022, national assessment and accreditations were re-introduced, though with some adjustments and mitigations, including more generous grading, put in place in recognition of the impact of the pandemic.

274. During the period March 2020 to June 2022, the Department for Education (DfE) commissioned studies from the Education Endowment Foundation (EEF), Education Policy Institute (EPI), Nuffield Foundation, and University of Oxford, among others, to

understand the ongoing impacts of the pandemic on attainment and related matters. This allowed the government to map absence and attendance of learners and staff (Sibieta, 2021); analyse impacts of changes to in-person attendance, proposals for measures to respond to exam cancellation and reviews of the measures then implemented (Education Policy Institute, 2021), learning progress and learning loss at different stages of schooling (Department for Education, 2021; Tracey et al., 2022; Rose et al., 2021; Weidmann et al., 2022), and unequal effects of such changes to learners living with disadvantage (Darmody et al., 2021; Rose et al., 2024; Education Endowment Foundation, 2022; Tuckett et al., 2022; Education Policy Institute, 2020).

Northern Ireland

275. Public exams were cancelled in 2020 and 2021 in Northern Ireland, and GCSE and vocational qualification grades were based on school/college assessed grades (Northern Ireland Statistics and Research Agency, 2024). A-levels in 2020 were graded either as school/college assessed grades or the grade calculated by the Council for the Curriculum, Examinations and Assessment (CCEA), whichever was higher, and, in 2021, were determined by school/college assessment. In his 2020 statement about this decision, Northern Ireland's Education Minister highlighted that

> "*…my prime concern is to ensure that young people in Northern Ireland are in no way disadvantaged in comparison to their peers elsewhere… Portability and comparability of qualifications is critical for students, particularly in Northern Ireland*" (DENI, 2020).

In 2022, public exams went ahead with some adaptations: learners studying at any level could choose whether to reduce the number of exams/assessments they sat; some subjects reduced the coursework/ controlled assessment requirements; and, in common with Wales, a more generous grading approach was taken (Council for the Curriculum, Examinations & Assessment, 2022). Key Stage 2 reading and maths tests (for children aged 10 or 11) were also cancelled, and were not formally replaced, although teacher assessment continued.

Scotland

276. As was the case elsewhere in the UK, the Scottish Government employed several methods to monitor the impact of school closures on attainment during the pandemic. In primary schools, online standardised assessments typically taken by learners at approximately age 5, age 7 to 8, age 10 to 11 and then again in secondary school at

age 14 to 15, were still conducted in 2020 to assess progress in reading, writing and numeracy during 2020 and 2021. However, participation rates were lower than in the years prior to 2020, not unexpectedly given the overall context. It is important to note that primary schools in Scotland do not have an equivalent to the English system of formal national exams like the SATs, but accountability measures include reporting by schools of their ACEL (achievement of 'Curriculum for Excellence' Levels).

277. In secondary schools, all national qualification level exams and assessments ('Nationals', 'Highers' and 'Advanced Highers') were cancelled in 2020 and 2021. In 2020, in place of the cancelled exams ('Nationals', 'Highers' and 'Advanced Highers'), attainment was measured through a combination of alternative assessments, including teacher-assessed grades based on classwork, coursework and internal school-designed tests. In 2021, a system of teacher assessed grades called the Alternative Certification Model was introduced. Exams and other methods of accreditation of attainment returned in 2022, although, as was the case elsewhere in the UK, this re-introduction was accompanied by a range of adjustments, including more lenient grading.

278. Monitoring of these changes was undertaken in various ways. The Alternative Certification Model was itself subject to evaluation in 2022 in order to assess how this system had worked in practice (Scottish Qualifications Authority, 2022). This followed a review of the approach to national qualifications in the initial phase of the pandemic (Priestley, 2020). The government also commissioned an 'Equity Audit' to assess the impact on children and young people facing disadvantage in education (Scottish Government, 2021) which included consideration of the impacts on attainment. This drew on evidence from national surveys such as 'Lockdown Lowdown' (Scottish Youth Parliament, 2020), which gathered data directly from young people on their wellbeing, and engagement and sense of connection to school. Reports which examined specific issues have been limited to date but include, for example, Crummey (2021) on attainment, disadvantage and rurality.

Wales

279. In the years leading up to the pandemic, learners in Wales were assessed at the end of each Key Stage, using national tests and teacher assessments to measure learners against the National Curriculum levels (for Key Stage 1 to Key Stage 3) and external GCSE results (for Key Stage 4). At the end of Key Stage 2 (age 10 or 11), learners took national reading, maths and reasoning tests, and at the end of Key Stage 3 (age 13 or 14) took national tests in reading, maths and science.

280. National tests were cancelled across Wales for Key Stages 3 and 4 in 2020 and 2021, following consultation with stakeholders, including over 2,000 learners and 1,000 parents or carers (Qualifications Wales, 2020). Exams returned in 2022, and as in the other UK jurisdictions, a more generous grading approach was taken in recognition of the disruption caused by the pandemic. In addition, assessment requirements were adapted in a variety of ways depending on subject, including reductions in the content assessed, in some cases the removal of an entire unit, and advance information (Qualifications Wales, 2025). For vocational qualifications, a "*less prescriptive regulatory approach, which was based on a flexible, principles-based extraordinary regulatory framework*", was put in place (Qualifications Wales, 2025, p. 6).

281. In June 2020, the Welsh Government commissioned Welsh universities to conduct collaborative research considering the views of school staff, parents or carers and learners on the impact of the Covid-19 pandemic on the education system in Wales, including on learner assessment (Waters-Davies et al., 2021). While some parents were very positive about the range of new approaches introduced, especially in terms of digital innovation, they also talked about the impact of the uncertainties, especially with regard to exam cancellation, and a sense that communication about changes was often too variable. As one school leader noted in this study,

> "*Not knowing how long we were going to be away for was a stress on the exam year groups and was felt intensely because they weren't getting the teaching in a time period when, normally, … they'd be finishing course work and beginning mock papers and getting into the nitty gritty of the exams*" (Waters-Davies et al., 2021, p.29).

282. The Welsh education system has seen major change since 2022, ending Key Stage national testing and replacing this with national reading and numeracy personalised assessments, which are intended to be formative rather than summative (Education Wales, 2024). This makes comparison over time problematic.

283. In summary, England, Scotland and Wales adopted broadly similar approaches to monitoring the impacts of school closures on attainment, relying on their existing data collection and analysis systems, but also developed or commissioned new research collaborations and policy evaluations to address the challenges imposed by the pandemic. Given the pre-existing variability in available data to allow in-depth

analysis of differential impacts, and the variability in breadth and scope of monitoring undertaken during the pandemic, there are some limits to UK-wide comparison.

284. The section which follows assesses the impacts on children's learning. It is essential to bear in mind the limitations of much of the data collated on the immediate effects of the pandemic. Research, including for governments, undertaken during the early months of the pandemic itself was undertaken at pace, often taking the form of rapid reviews, with limited sample sizes or other methodological constraints. This report draws on the best available evidence but notes that the early months were also an unprecedented time to be undertaking research. The majority of the studies referred to below draw attention to these limitations and urge caution in interpretation of results. It is important to heed these calls for caution and recognise that it may still be too soon after the pandemic to be confident that we can have a full and accurate understanding of effects. With these caveats in mind, there are still some general conclusions to be drawn.

3.2. An assessment of the impact that the pandemic has had on children's learning and educational attainment

285. Understanding of the impacts of the pandemic on learning relies mainly on assessment of formal academic attainment. As noted above, each of the four UK jurisdictions undertakes some form of formalised national assessment at approximately the same age and stage, around 15 to 16 years old, and each has publicly available datasets from the years prior to 2020, so that it is possible to analyse changes brought about by school closures, changes to exam arrangements etc., at this age range. Although relevant details on post-16 qualifications are also included below, the main focus is on national qualifications at age 16, as this marks the official school leaving age for all children in the UK, and so provides a key benchmark against which to assess the pandemic's impact on outcomes, transitions and onward destinations in general.

286. As is always the case, care is necessary in drawing comparison or in making generalisations over time and across the UK. For example, England and Wales had seen significant changes to curriculum and assessment frameworks in the years leading up to the pandemic, while Northern Ireland and Scotland had experienced fewer changes in the same period. In addition, as discussed above, the four jurisdictions made their own distinctive changes to assessment frameworks during

the pandemic based on local needs and policy priorities. There is less data available for learners in primary school years.

287. While this section necessarily focuses on assessment of attainment, the wider impacts on learning should not be under-estimated, even if these can prove harder to measure. The links between positive personal and social development and academic attainment are well-established. Therefore, this section also outlines the evidence on impacts on learners' personal and social development, wellbeing and relationships. Although it touches on mental health as part of a discussion of impacts, a detailed consideration of mental health issues is beyond the scope of this report. More detailed information about mental health and wellbeing per se is provided in the Expert Report to this Inquiry prepared by Newlove-Delgado and Creswell (INQ000587958).

288. A further point worth noting here relates to the sources of current understanding of these impacts. The overall body of evidence available draws mainly from adults and, within that group, mainly from professionals. Where possible, the discussion below draws on studies which gather the views and experiences of those most directly affected, that is, children and their families, whilst always noting that it is still rare to find their views included in research. Furthermore, the small number of studies which do report findings from children and families tend to be smaller scale studies, often undertaken by advocates of particular groups. This has the unintended consequence of centring some views and not others, so that, for example, the views of children living with socio-economic disadvantage are often missing. This has long been the case in research but has specific resonance in the context of the pandemic. It constitutes a significant gap in knowledge and one which detracts from the authority and reliability of evidence overall.

289. Impacts can be understood as short-term, medium-term and long-term. These terms are rarely defined clearly in the studies reviewed for this report. We therefore propose that, within this report, and taking account of the context of education, it may be helpful to regard short-term as referring to a period of up to a year; medium-term as 2 to 3 years; and long-term referring to impacts which are sustained through the transition onwards from school and into adulthood. These longer term impacts are discussed in Chapter 5 of this report. The pandemic and associated school closures and restrictions affected various groups of children in specific ways. These are discussed below, beginning with a review of evidence on impacts associated with age and stage.

Impacts on learners, related to age and stage of education

290. Covid-19 caused major and widespread disruption to the education of young people, and it had some specific impacts on those at particular ages and stages of their education, including those starting school, those experiencing transitions from primary to secondary school, those who were due to take national exam qualifications and school leavers. This Report centres its attention on education for school aged children. Impacts on children who had not yet started school at the point the pandemic started, are the subject of the Expert Report to this Inquiry by Davies and La Valle (INQ000587957).

Very young children and those starting school

291. Throughout the pandemic, specific concerns were raised about the impact on very young children and those due to start school during the pandemic years. Studies have raised concerns about the effects of lockdowns and associated closures on young children's learning and development, including speech and communication (Bowyer-Crane et al., 2021), language and literacy (Education Endowment Foundation, 2022), increased social, emotional and mental health needs and physical development (La Valle et al., 2022), on play and social skills, and children's development and wellbeing (Public Health Scotland, 2022; Rogers, 2022; Tracey et al., 2022). Research with parents of children in this group highlighted negative impacts on their children's development in areas including overall wellbeing, sleep and concentration. Negative impacts were experienced more severely and more commonly by children from low-income and one-parent families (Public Health Scotland, 2020).

292. These concerns have often taken the form of worries about 'school readiness' (Hobbs & Bernard, 2021; Nicholls et al., 2020), including measurements such as whether children are able to use a toilet, and narratives around these concerns have often focused on the need to help children to 'catch up' or become 'school ready'. It is important to remember that many low-income families experienced additional stress and financial worries during lockdowns, including reduced income from work and reduced practical and financial support and educational materials (Child Poverty Action Group, 2020; 2021). Research with practitioners in early years settings has found that they are critical of 'catch up' narratives, instead focusing on the need to provide good quality early learning education and childcare in a better resourced sector, and providing the practical and financial support families require (Tyrie et al., 2021). The impact on child development and early years education is discussed in

detail within the Expert Report prepared by Davies and La Valle for this Inquiry (INQ000587957).

Learners transitioning from primary to secondary school

293. Many primary-secondary transition programmes were reduced or cancelled during the pandemic due to school closures or Covid-19 restrictions which required avoiding mixing of different year groups (Tsegay et al., 2023). Research with teachers, learners and parents has highlighted that the pandemic affected teachers' ability to prepare learners for, and support them through, this transition, that learners were less ready for transitions than in non-pandemic years, that there were emotional and relational impacts on learners, with children feeling 'stressed' about the transition, sad about not being able to say goodbye to friends and teachers, and a general sense of disorientation due to all the changes they were experiencing, as well as, for some, challenges forming and maintaining friendships due to moving schools in the midst of restrictions (Ashworth et al., 2022; Bagnall et al., 2022; Edge et al., 2023; Leaton Gray et al., 2021).

294. At the same time, there is also evidence that schools' adaptations to the pandemic, including the development of online school tours, open evenings, and the use of 'bubbles' (keeping learners in smaller groups), supported the inclusion and wellbeing of some learners and parents in beneficial ways (Edge et al., 2023; Saville et al., 2024). There may be an important lesson to learn here: rather than solely expecting learners to be ready for the move to secondary school, there may be more that secondary schools could do to ensure their own readiness and informed understanding of how to best meet the needs of the incoming cohorts:

> "*The discourse for a number of years now in primary schools, particularly regarding Year 6 academic achievement, has been on ensuring pupils are 'secondary school ready'… but… how important it is that all schools are Year 6 and 7 pupil ready, particularly in their nurturing of peer and teacher relationships and catering for pre-adolescent students*" (Saville et al., 2024, p. 58).

Learners in exam years

295. The assessment of children in exam years was profoundly affected by school closures. When exams were cancelled in 2020, alternative assessment arrangements were put in place across the UK. All four jurisdictions introduced

teacher-based assessments. Schools were urged to ensure that learners did not suffer disadvantage because of the exam cancellations, given this change was so sudden and unprecedented. Arrangements had to be put in place very quickly, given that the exams were imminent at the point the country went into the first lockdown.

296. The national qualifications agencies initially used algorithms to arrive at grades based on the teacher-assessed grades provided by schools. This resulted in lower grades, notably for learners at state schools, larger schools and those which did not have a history of high attainment. This led to a public outcry. The use of algorithms was subsequently abandoned, and, following moderation of the grades for these assessments, grades then rose above the levels seen in a typical year (Council for the Curriculum, Examinations & Assessment, 2021, 2022; Office of Qualifications and Examinations Regulation, 2025; Qualifications Wales, 2023; Scottish Qualifications Authority, 2024).

297. Although direct comparison between jurisdictions is not advisable due to differences between types of qualifications, and statistical collection and reporting methods, it is evident that in every jurisdiction the proportion of GCSE entries graded C or above, or equivalent, rose in 2020 (see table 10).

Table 10: Proportion of GCSE entries graded C or above (or equivalent) (%)

	2019	*2020*	*2021*	*2022*
England	*67.0*	*75.9*	*76.9*	*73.0*
Northern Ireland	*82.2*	*89.8*	*89.6*	*90.3*
Scotland	*78.3*	*89.0*	*85.8*	*81.6*
Wales	*62.8*	*73.8*	*73.6*	*68.6*

Please note: results are not directly comparable across jurisdictions due to differences between qualifications, and statistical collection and reporting methods.

Source: Council for Curriculum, Examinations & Assessment, 2022; Office of Qualifications and Examinations Regulation, 2025; Qualifications Wales, 2023; Scottish Qualifications Authority, 2024

298. In 2021, when assessments were still largely teacher-assessed, a significantly higher proportion of GCSEs were graded at grade C or above (or equivalent) than pre-pandemic. In all jurisdictions except England, GCSE and equivalent results

decreased compared to 2020. Scotland was the only jurisdiction that used local moderation and quality assurance processes as well as historical grade distributions to guide moderation in 2021. Likely as a result of this, the reduction in grades between 2020 and 2021 was most pronounced in Scotland. In contrast, in England in 2021, grades were awarded based purely on teacher judgement, without further adjustments. This led to higher results for many students as there was no moderation against previous years' performances.

299. The decisions that were made about how to assess learners in exam years were often made premised on a need for 'fairness'; ensuring that those in exam years during the pandemic were not disadvantaged compared with previous cohorts. There may have been some impacts on other types of fairness, however. When teacher assessed grades were used without external moderation, statistics in Wales, for example, showed that there was wide variation in results between schools, with some increases in grades being much larger than others. Some groups of pupils, particularly those from ethnically diverse and socially disadvantaged backgrounds and those with additional learning needs, were felt to be disproportionately disadvantaged (Casella, 2020). In addition, the results across schools were higher than previous years, whereas in an exam year there would usually be some results that are higher and some lower (Qualifications Wales, 2021). In England, some independent schools were investigated by exam boards for alleged grade inflation during the period of teacher assessment (Dickens, 2022), and it is unclear what the outcome of these investigations were and whether this information is publicly available.

300. As well as concerns about equalities and fairness for learners who were in exam years in 2020 or 2021, there are also considerations for children then in earlier stages of education but who will go on to make up the future exam cohorts. They were also affected by the pandemic and associated responses including school closures, but they will be expected to sit exams and be measured by pre-pandemic standards (Tuckett et al., 2022).

301. In their comparative work looking at assessment across a range of countries, Hayward and O'Leary (2022) point to two conflicting explanations for the higher grades awarded when exams were cancelled. One is that, in line with previous reviews of teacher grading, teacher grading leads to grade inflation, either because a) teachers want to reward pupils they see as hardworking or because b) they lack sufficient experience of national standards (Urhahne & Wijnia, 2021). Another

explanation is that teacher assessments are more accurate than formal exams and more likely to make an accurate judgement about a learner's knowledge and understanding. It has been pointed out that exams may disadvantage many learners, particularly in a situation where they had "*differential opportunity to learn, exacerbated by the pandemic*" (Nisbet & Shaw, 2022, p. 529). Bias in assessment is a large field of study and beyond the scope of this report. However, it is generally accepted that all assessments will have bias, whether these are test-based or teacher-assessed. Robust evidence from previous studies indicates that bias in assessment is associated with gender, social class, special needs and ethnicity (see, e.g., Burgess et al., 2022; Burgess & Grieve, 2013; Ofqual 2021). For example, some ethnic groups (including black Caribbean, black African, Pakistani and Bangladeshi learners as well as Indian and Chinese learners), learners on free school meals, and those with special needs often have lower teacher assessment scores than their key stage assessments (Burgess & Grieve, 2013; Ofqual 2021).

School leavers

302. Although grades were higher overall for school leavers in 2020 and 2021 than in previous years, not all learners had had access to the full curriculum due to school closures and changes to assessment. Some learners reported that their confidence was negatively affected and that they experienced increased anxiety as a result of transitioning between school and further or higher education, even when the reason they may have lacked some of the expected skills and knowledge was Covid-related (Scottish Government, 2022b; Maguire et al., 2022).

303. Cross-UK studies with those aged 16 to 25 showed that many were concerned about access to careers support and employment prospects (Orlando, 2022) and the development and maintenance of skills for work and access to work placements and apprenticeships (Doherty & Cullinane, 2020; Green et al., 2022) during the pandemic. Almost two-thirds (64%) had changed their educational plans, and only slightly fewer had changed their career plans (60%) because of the pandemic (Yarde et al., 2022). The legitimacy of these concerns was borne out in employment statistics which showed that young people were disproportionately affected by disruptions to work and employment; younger people are more likely to be employed in sectors requiring face-to-face interaction (e.g. hospitality, leisure and retail), and the pandemic impact was likely to have been worse for those with fewer employment rights often associated with these sectors (Wilson & Papoutsaki, 2021; Department for Education, 2023).

304. The number of higher education enrolments across the UK increased more sharply in 2020/21 than in previous years (rising 8% in 2020/21 compared to 2019/20), likely as a result of increased grades following changes to assessments. The number of enrolments fell slightly the following year (a 2% decrease in 2021/22 compared with 2020/21), although the numbers were still in line with pre-pandemic increases in enrolments (Higher Education Statistics Agency, 2024). These numbers were affected by the UK's exit from the European Union, but it is worth noting that UK domiciled enrolments decreased (by 2%) for the first time since 2011/12 in 2021/22 (Higher Education Statistics Agency, 2023). At taught postgraduate level, enrolments increased by 16% from 2019/20 to 2020/21 – a sharper increase than in previous years – perhaps reflecting the then contracting labour market (Higher Education Statistics Agency, 2024).

Impacts of the pandemic on levels of attainment

305. The impacts of the pandemic for learners in the UK were wide and deep. Programme for International Assessment (PISA) data, which is based on assessments usually taken at age 14 to 16, demonstrates that, in common with most other OECD countries, Covid-19 had a negative impact on learning in the UK. In terms of PISA scores, the impact varied across the UK. In 2022, all four UK nations had their worst ever PISA scores in science, even though England and Northern Ireland scored above the OECD average, with Scotland dropping to the OECD average for the first time. Northern Ireland, Scotland and Wales had their worst ever scores in maths, and Wales fell below the OECD average for the first time. Northern Ireland and Wales had their worst ever scores in reading (Farquharson et al., 2024).

306. The PISA scores from 2006-2022, for learners at age 15, are shown in Table 11 and Figure 11 and illustrate the differences across the UK and trends over time.

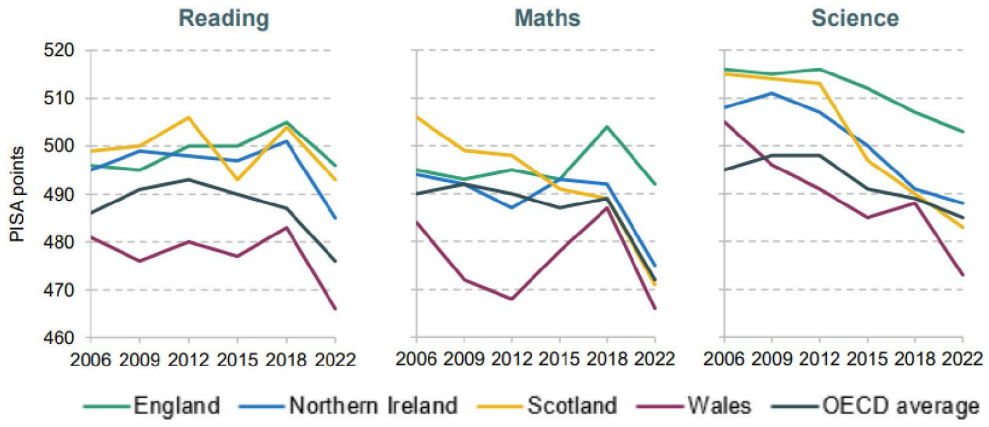
Table 11: PISA test scores in maths, reading and science, UK 2006 to 2022

	Year	Maths	Reading	Science
UK	2006	495	495	515
UK	2009	492	494	514
UK	2012	494	499	514
UK	2015	492	498	509
UK	2018	502	504	505
UK	2022	489	494	500
England	2006	495	496	516
England	2009	493	495	515
England	2012	495	500	516
England	2015	493	500	512
England	2018	504	505	507
England	2022	492	496	503
N Ireland	2006	494	495	508
N Ireland	2009	492	499	511
N Ireland	2012	487	498	507
N Ireland	2015	493	497	500
N Ireland	2018	492	501	491
N Ireland	2022	475	485	488
Scotland	2006	506	499	515
Scotland	2009	499	500	514
Scotland	2012	498	506	513

Scotland	2015	491	493	497
Scotland	2018	489	504	490
Scotland	2022	471	493	483
Wales	2006	484	481	505
Wales	2009	472	476	496
Wales	2012	468	480	491
Wales	2015	478	477	485
Wales	2018	487	483	488
Wales	2022	466	466	473

Source: adapted from Scotland's Data on a Map, 2024

Figure 11: Average reading, maths and science levels in UK, 2006-2022



Source: Based on figures 7.13–7.15 in Sizmur et al. (2019); OECD (2023).

Source: Farquharson et al., 2024, p.7.

307. Although the ways in which attainment data was gathered changed during the pandemic, as explained above, it is still important to seek an understanding of the impacts. This is possible by comparing attainment from 2019, the last year before the pandemic, with attainment data from 2022. Turning from PISA test scores to national measures of attainment there were also marked changes. At the end of Key Stage 2 or equivalent, when most learners are around age 11, across the three jurisdictions where data is available (Key Stage data has not been available in Northern Ireland

since 2019), the percentage of learners meeting the expected levels decreased between 2019 and 2022. In England, Key Stage 2 standard assessment tests (SATs) attainment overall (combining reading, writing and maths scores) decreased compared to 2019, but looking at individual subject scores, reading scores increased while the others reduced (Department for Education, 2022).

308. This is in line with global research which has found that maths attainment declined more than reading (Betthauser et al., 2023). In Scotland, Achievement of Curriculum for Excellence Levels (ACEL) scores across reading, writing, talking, literacy and numeracy decreased in 2021 then increased in 2022, almost reaching pre-pandemic levels overall (Scottish Government, 2022a). In Wales, average attainment in numeracy (procedural), the only subject in which scores are comparable with 2019 due to changes in assessment methods, decreased in 2021 and remained at this level in 2022 (Welsh Government, 2024).

Impacts of the pandemic on personal and social development, social relations and wellbeing

309. Following school closures, a strong emphasis was placed on 'lost learning' (Department for Education, 2022; Ofqual 2021). However, this emphasis offers only a partial understanding of essential, wider aspects of learning, including social development, relationships, play, movement, and wider life skills (Colucci-Gray, 2022; Maynard et al., 2023). School closures negatively affected the wellbeing of many learners (Blanden et al., 2021), though this impact did not affect all learners equally (see Chapters 4 and 5 for further detail on differential impacts). Some schools became:

> "*more highly attuned to issues of social and emotional well-being. These schools have sought to achieve what they regard as an appropriate balance between an emphasis on attainment and an emphasis on wellbeing, communication, relationships and responsiveness.*" (Daniels et al., 2023, p.10).

310. However, school staff across the UK also voiced concern about increases in the proportion of learners who struggled to focus, complete tasks, and manage relationships in school, sometimes in ways which could be highly disruptive (Education Scotland, 2022; National Association of Schoolmasters Union of Women Teachers, 2023; Scottish Government, 2023). In some schools, in combination with pressures to demonstrate that they are 'catching up', this appears to have led to

increased rates of formal exclusion and suspension and, hence, a further entrenching of inequalities (Daniels et al., (2025), Duffy et al., (2024), Gill et al., (2024) and NASUWT (2025)).

311. There is some evidence that older children experienced more mental health challenges during the pandemic (Casey & McLaughlin, 2022; Children's Commissioner for Wales, 2021; Scottish Youth Parliament et al., 2020). Research with children and parents highlighted that many children experienced mental, social and emotional health and wellbeing challenges throughout the pandemic, that these challenges manifested in different ways for different age groups, and that mental health and social and emotional development should be prioritised in catch-up planning, rather than focusing solely on academic catch-up (Children's Commissioner for Wales, 2021; Education Scotland, 2022; Scottish Youth Parliament et al., 2020; Young Minds, 2021). As noted earlier, the issues related to mental health and wellbeing are discussed in greater depth in the Expert Report by Newlove-Delgado and Creswell (INQ000587958) for this Inquiry.

Consideration of whether impacts can be measured on a population wide basis

312. The impact of Covid-19 on learning and assessment cannot be measured on a population wide basis. Across the four jurisdictions, there were differences in the scope, frequency, and focus on how data was collected in relation to the learning and attainment during, immediately after the pandemic, and long-term. England has the most data with large scale studies, such as the Covid Mobility and Opportunities (COSMO) study, as well as various data by the Department for Education and the Office for Standards in Education, Children's Services and Skills (Ofsted) reviews, and National Tutoring Programme (NTP) data. Each devolved government conducted independent reviews of Covid-related impacts, but these tended to be smaller in scale and less frequently updated than in England.

313. Measuring the impacts on a population wide basis is also hindered by missing data on some learners. For example, learners who were electively home educated (EHE) before the pandemic faced significant challenges because they were not enrolled in a school that could provide teacher-assessed grades during the pandemic. There were no clear routes for these learners to receive any grades, which led to delays and uncertainties. Eventually, special arrangements were introduced, allowing some home educated candidates to receive grades based on evidence submitted through exam centres, or to sit exams in autumn sessions (Isaacs & Murphy, 2022). This

affected especially marginalised groups such as Gypsy, Roma, and Traveller (GRT) communities who are less likely historically to be enrolled in schools, particularly at secondary stages (UK Government, 2022). Data generally on electively home educated learners is historically sparse across the UK.

314. In addition, whilst all statutory assessments were cancelled for primary school learners in the four jurisdictions in 2020, and only some online assessments reinstated in Scotland and Wales in 2021, learners with special needs were particularly disadvantaged by the teacher assessments that replaced the statutory assessments. There was wide variation in the assessment methods and lack of standardisation for learners with special needs (Baird et al., 2023). There was limited access to specialist support to help teachers in mainstream schools to make adjustments to their assessments or make accurate judgements, and teachers were not always trained to assess special need-specific progress markers, especially for students with low-incidence or complex needs.

315. Other groups for whom the cancellation of the statutory assessment was an issue in terms of monitoring the impact on learning, include disadvantaged learners, those who had English as an Additional Language (EAL), are care experienced/children in care, and high attaining or gifted learners because the loss of statutory exams impacted on the equity of the assessments and a lack of tracking progress and opportunities for these groups (Tuckett et al., 2022).

316. Some of these difficulties related to measuring the impact on learning and attainment are rooted in wider systemic issues that were present before the pandemic, e.g., teachers not having sufficient understanding of socio-economic disadvantage, or special needs, EAL or giftedness to measure progress accurately or how to track home educated students. Covid-19 has highlighted significant gaps in data and provision related to learning and assessment.

Differential impacts of the pandemic

317. Although impacts of the pandemic were felt by all learners, they were not experienced by everyone equally. The pandemic exacerbated pre-existing inequalities. The discussion below outlines some of the key differential impacts. In many cases, negative impacts intersect with each other, compounding the impacts. Chapter 4 will discuss the differential impact for students with special needs.

Poverty and socioeconomic inequality

318. It is beyond the scope of this report to provide an in-depth analysis of the impacts of poverty and its intersection with other dimensions of inequality. However, the Expert Report on Child Health Inequalities for Module 2 of this Inquiry (INQ000280060) provides a helpful and succinct account of socio-economic contexts in the UK, emphasising how poverty fundamentally shapes and pervades experiences and outcomes in education.

319. Across the UK, evidence from formal assessments and studies on teacher-reported progress indicate that students from low socio-economic status families scored below their more affluent peers, and spent less time learning, with inequalities worsening as a result of the pandemic (Anders, 2024; Blundell et al., 2021; Cattan, 2021). A number of evidence reviews undertaken during the pandemic also highlighted the differential impact on the learning of children living with socio-economic disadvantage. In England, a 2021 evidence review by the Office of Qualifications and Examinations Regulation (Ofqual) found that the decline in learning was more severe for younger, primary age pupils, and lower attaining and disadvantaged children of all ages (Office of Qualifications and Examinations Regulation, 2021). Key Stage 2 attainment data in 2022 showed that the disadvantage gap had widened to the highest level since 2012 in England. The Department for Education (2022) reported that, between 2019 and 2022:

> "*In reading, attainment remained stable for disadvantaged pupils at 62% and increased from 78% to 80% for other pupils. In writing, attainment fell from 68% to 55% for disadvantaged pupils and from 83% to 75% for other pupils. In maths, attainment fell from 67% to 56% for disadvantaged pupils and from 84% to 78% for other pupils*" (Department for Education (2022, p. 11).

320. A similar evidence review in Northern Ireland found that pupils from more deprived backgrounds were making less progress in their learning than their peers (Miller et al., 2022). In 2021, Qualification Wales undertook equalities analysis of GCSE results, finding that although the gender attainment gap in 2021 was narrower than in previous years and the special needs and ethnicity attainment gaps remained stable, the free school meal entitlement (FSME) attainment gap was wider than in previous years. In 2021, 52.5% of learners in receipt of free school meals achieved GCSEs passes in English and maths, compared with 79.5% of learners not in receipt of free school meals. In 2020, 53.9% of learners in receipt of free school meals achieved

GCSEs passes at C or above in English and maths, compared with 78.6 % of learners not in receipt of free school meals, while in 2019, 41.8% of learners in receipt of free school meals achieved GCSEs passes in English and maths, compared with 69.3% of learners not in receipt of free school meals (Fuery et al., 2021, p. 21). In Scotland in 2021/22, the gap between the curriculum for excellence level achievement of literacy and numeracy of children and young people from the most and least deprived areas was wider than in 2018/19 across all age groups (Scottish Government, 2022a).

321. These impacts on learning and attainment are unsurprising in the context of a wide and growing body of evidence highlighting that the pandemic and responses to it have worsened poverty and inequality (Jakubowski et al., 2023; Policy Scotland, 2022; Rose et al., 2021). For many families on low incomes, the

> "*single biggest source of worry was around isolation and schools closing and the harmful impact this was having on their children's education, emotional growth and mental health*" (Scottish Government, 2022c, p. 5).

Gender

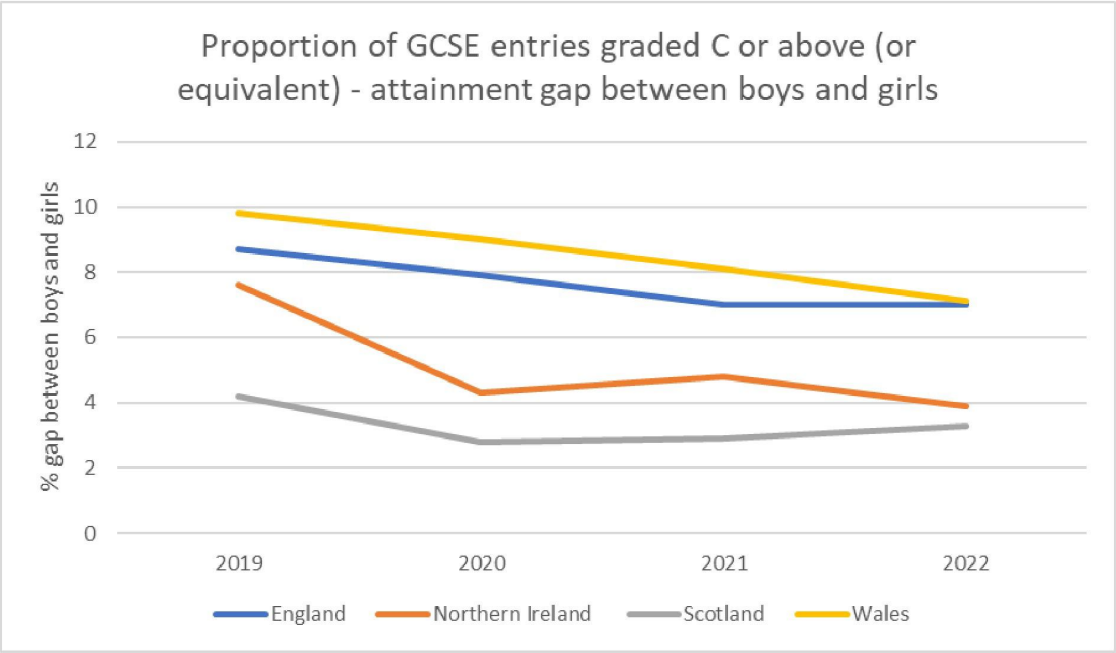
322. There is some evidence that the attainment gap between girls and boys slightly decreased throughout the pandemic. Looking at GCSE grade C or equivalent, although the pattern of attainment results throughout 2019 to 2022 was broadly the same for boys and girls, with girls' and boys' grades increasing while alternative assessment arrangements were in place, and girls continuing to do better than boys, the achievement gap between boys and girls reduced in all four UK jurisdictions in 2020 and remained smaller in 2022 than it had been pre-pandemic (see Table 12 below). This is likely to be at least partly due to changes to assessment methods.

Table 12: Proportion of GCSE entries graded C or above (or equivalent) (%) – gap between girls and boys

	2019	*2020*	*2021*	*2022*
England	71.4 62.7 8.7	79.9 72 7.9	80.4 73.4 7	76.5 69.5 7
Northern Ireland	85.4 77.8 7.6	91.9 87.6 4.3	91.9 87.1 4.8	91.7 87.8 3.9
Scotland	80.3 76.1 4.2	90.4 87.6 2.8	87.2 84.3 2.9	83.3 80 3.3
Wales	67.6 57.8 9.8	78.2 69.2 9	77.6 69.5 8.1	72.1 65 7.1

Source: Council for Curriculum, Examinations & Assessment, 2022; Office of Qualifications and Examinations Regulation, 2025; Qualifications Wales, 2023; Scottish Qualifications Authority, 2024

Figure 12: Proportion of GCSE entries graded C or above (or equivalent) – attainment gap between boys and girls



Source: Council for Curriculum, Examinations & Assessment, 2022; Office of Qualifications and Examinations Regulation, 2025; Qualifications Wales, 2023; Scottish Qualifications Authority, 2024

323. Looking at Key Stage 2 attainment in England, there were decreases among both girls' and boys' scores in all subjects except reading, comparing 2019 and 2022. Although the decrease was slightly larger for girls, they continued to outperform boys in all subjects except maths (Department for Education, 2022). In Scotland, literacy scores decreased by one percentage point for girls and increased by one percentage point for boys between 2019 and 2022, and numeracy scores decreased by two percentage points for girls and increased by one percentage point for boys (Scottish Government, 2022a). In Wales, boys continued to outperform girls in procedural numeracy across all stages that are measured (at ages 7-8; 10-11 and 13-14), with the gap increasing with age and between 2019 and 2022 (Welsh Government, 2024). Interestingly, other research has noted that girls tended to report working longer hours than boys on schoolwork, and were slightly more likely than boys to think their progress had suffered (Anders et al. 2024).

Ethnicity

324. Before the pandemic, attainment varied significantly between ethnic groups in the UK. In his analysis of the nationwide 'Understanding Society' survey in the early months of the pandemic, Yu found,

> "*…intersecting ethnic and native–migrant inequalities in the impact of Covid-19 on people's economic well-being, which exacerbate entrenched socio-economic disadvantages faced by BAME migrants in the UK*" (Yu, 2020, p. 3).

325. Almost all minority ethnic communities and families experienced higher rates of Covid-19 exposure and illness than their white British counterparts but some communities, especially Black and Caribbean groups were even more vulnerable to risk (Platt & Warwick, 2020). Similarly, impacts on access to work and income were not felt equally across ethnic groups (Morales & Ali, 2021; Yu, 2020; Scottish Government, 2021). Asymmetric effects on families often had an impact on children as learners. In England, for example, research with young people found that learners from minority ethnic backgrounds were more likely than others to be concerned they had fallen behind their classmates due to pandemic disruption: 39% of Black students and the same proportion of Asian students worried they had fallen behind, as well as 43% of those with other minority ethnic backgrounds. This compared to only 33% of white students having the same concern (Anders et al., 2024).

326. Many learners with English as an additional language (EAL) found it harder to access schoolwork during school closures, and had fewer opportunities to practise speaking English, ask their teachers questions, or access additional support. Language barriers and a lack of familiarity with the school curriculum made it particularly challenging for some parents to support online learning (Scott, 2022; D'Angelo, 2020; D'Angelo & Manzoni, 2023). Some families with limited English struggled to understand and access benefits, sometimes due to temporary changes in eligibility. Telephone appointments in the place of in-person services were an additional barrier to some, increasing family pressures.

327. In addition to these barriers, families seeking asylum faced additional challenges during the pandemic. Many families seeking asylum experience deep poverty and, for those with no recourse to public funds, destitution. Delays to the asylum system during the pandemic further impacted financial difficulties and exacerbated stress and anxiety (Christie & Baillot, 2020; D'Angelo & Manzoni, 2023; Finlay et al., 2021;

Scott, 2022; Scottish Government, 2021). These challenges led, in turn, to difficulties for children's learning experiences during the pandemic.

Children who were clinically vulnerable or in clinically vulnerable families

328. Research which looks at impacts of Covid-19 on clinically vulnerable children has mainly focused on health issues, such as rates of diagnosis or hospital admissions and care. There is very little large-scale research which investigates educational impacts for children identified as clinically vulnerable or living in clinically vulnerable families. It is common for research to make mention of the need to consider potential impacts on education, but such calls tend to be made in passing, rather than a central focus of investigation. Cowley et al. (2023), for example, examined the effects of the pandemic on the mental health of clinically extremely vulnerable children and children living in clinically vulnerable families in Wales in the early months of the pandemic. This study concluded that clinically extremely vulnerable children (but not those living in clinically extremely vulnerable families), were at higher risk of anxiety or depression compared with the general population; it also noted that this aligned with similarly high levels of risk evident in this group pre-pandemic. Although not directly focused on educational impacts, it is clearly important to recognise impacts of health and wellbeing, including mental wellbeing, on learning and achievement.

329. The paucity of research gives rise to a significant gap in understanding of current impacts and potential longer-term effects. It is important to address this gap in order to ascertain how risks were mitigated or exacerbated by, for example, school closures and re-openings, exam cancellations, face coverings and other non-pharmaceutical interventions.

Children who developed Long Covid

330. Research which examines the educational impacts on children who develop Long Covid is sparse (see INQ000587960 for a further discussion on Paediatric Long Covid). As is the case with children who were clinically vulnerable or in clinically vulnerable families, most research interest has focused on health impacts rather than educational impacts. Those studies which have investigated impacts on learning and attainment, were often undertaken in the early months of the pandemic (for example, a Spanish study conducted by Gonzalez-Aumatell et al., 2022) and noted negative effects on school attendance, school performance and participation in extra-curricular activities. In the UK, the COSMO study of health impacts and behaviours in the UK,

which examined the period between October 2021 and March 2022, perhaps unsurprisingly, also found impacts on school performance;

> "*Controlling for background characteristics and prior attainment, suffering from long COVID that severely limits daily activities and being asked to shield were associated with lower teacher assessed GCSE grades. The experience of being seriously ill in hospital (not only due to COVID-19) is also negatively associated with teacher assessed GCSE attainment*" (Holt-White et al., 2023, p.2).

331. This study reported that children who had Long Covid or had been shielding were more likely than other children to take part in catch up activities such as one to one additional tutoring. Yarde et al. (2023), also reporting data from the COSMO study, further notes that children affected by Long Covid were more likely to have changed their plans for education and future career and also to feel they had fallen behind in their learning (Yarde et al., 2023).

332. MacLean et al. (2023) is unusual in being a qualitative study and having as its central focus the impact of Long Covid on children's experiences of school. Participants in this study, undertaken between October 2021 and July 2022 in the UK, reported challenges with school attendance and engagement, and concern about a lack of understanding of Long Covid among school staff and healthcare professionals.

333. It seems reasonable to surmise that Long Covid symptoms such as fatigue, pain/discomfort, trouble sleeping, shortness of breath, headaches, problems with mobility, feelings of sadness or worry (Lopez-Leon et al., 2022; Stephenson et al., 2024), could have substantial long-term impacts on learning outcomes (Holt-White et al., 2023), but more research is needed to understand this. Any such research should aim to understand effects of the known elevated risk factors associated with Long Covid in children: socio-economic disadvantage, older age, female gender, severe Covid-19, comorbidities such as overweight and obesity, allergies.

Differences by type of school

334. The Covid-19 pandemic disrupted education across all sectors, but emerging data highlights significant disparities in the learning experiences of learners from different school types. Evidence from the large and ongoing Covid Mobility and Opportunities (COSMO) study in England reveals how access to online teaching, engagement in catch-up activities, and perceptions of learning loss varied between students in state

and independent schools, deepening pre-existing educational inequalities (Cullinane et al., 2022). There were also small differences in whether learners said they were involved in at least one catch-up activity (54% for young people in state comprehensive schools, compared to 51% for those in independent schools) (Anders, 2024). However, there were various types of catch-up activities and there were school type differences when examining the different types of activities in more depth. Learners in state schools (81%) were more likely to think their progress had suffered compared to their privately schooled peers (72%) (Anders, 2024).

Learners with special needs

335. The impacts on learners with special needs receives detailed attention in Chapter 4 of this report, but it is important to acknowledge that school closures had a disproportionate impact on learners with special needs across all four jurisdictions. It should always be borne in mind that, where special needs are present alongside other characteristics such as poverty or gender, the impacts have often been deepened and extended.

Learners on practical and work-based courses

336. There were specific challenges for practical and work-based courses. Many learners were unable to complete their mandatory placements or practical courses, and changing assessment models, while helpful to enable progression to the next stage of education, could not always equip learners with the skills they would have gained through work placements (Green et al., 2022; Maguire et al., 2022; Scottish Government, 2022a). These issues were felt keenly for school leavers who were trying to complete practical courses (see the section above on 'school leavers'), and for white working-class boys, who are more likely than others to undertake practical courses and apprenticeships (Cavaglia et al., 2020).

Children on the edge of care, on the child protection register, looked after children and care experienced learners

337. Children on the edge of care or on the child protection register, looked after children and those with care experience are not a homogenous group. However, they shared many common experiences during the pandemic. This 'group' incorporates learners who are in a wide range of living situations, including, among others, those who live with their parents but are on the child protection register or looked after at home, those living with prospective adopters, and those living in a secure unit. Many

children in these situations have experienced trauma, poverty, multiple school moves and care placement moves throughout their lives, so practical, emotional and financial support are essential.

338. For care experienced children, who often do not have family-based support networks to fall back on, access to support services can be crucial. Studies found that care experienced children often reported feeling anxious, lonely and isolated during the pandemic but had less support and communication from professionals (e.g. teachers, social workers, doctors); a situation that professionals also reported with concern (Baginsky & Manthorpe, 2020; Kelly et al., 2021; Who Cares?, 2022). Support services can also be crucial for families 'on the edge of care', or who do not meet the criteria for child protection registration but do require more support than universal services can provide. Professionals and researchers expressed concern about gaps in knowledge about this group of children, including the potential for 'hidden harm' due to decreased child protection referrals from schools, and social work's focus on those already considered at risk (Baginsky & Manthorpe, 2020; McFadden et al., 2024; McTier & Sills, 2021; McTier & Soraghan, 2022; Marmor et al., 2023).

Young carers

339. Although there is little data on the attainment of young carers, we do know that their ability to study was disproportionately affected during the pandemic. When young carers' support networks were unavailable or moved from in-person to online due to restrictions, many took on more caring responsibilities as a result, with drastically reduced access to respite care and breaks. In addition, it was often unclear whether young carers were eligible to attend school in-person during closures (Carers' Trust, 2020; Kassa & Pavlopoulos, 2021). Young people who reported that they had caring responsibilities worked fewer hours on their schoolwork than those who did not, likely reflecting the burden of such responsibilities interfering with their ability to work while at home (Anders, 2024; A Place in Childhood, 2022; Scottish Youth Parliament et al., 2020).

Mental health and wellbeing

340. Although mental health is not the focus of this report, (see INQ000587958 by Newlove-Delgado and Creswell), the impact on the mental health and wellbeing of children and their families is recognised as crucial in understanding the impact of the pandemic on learning overall. Although some learners with pre-existing mental health conditions reported positive impacts resulting from the pandemic, there is evidence

indicating that the consequences of the pandemic have been disproportionately negative for those with pre-existing mental health difficulties and those who were already isolated (Couper-Kenny & Riddell, 2021; Di Gessa et al., 2022; Sideropoulos et al., 2021; Stewart et al., 2022; Young Minds, 2021; Viner et al., 2021).

341. Parents with a child with a mental health condition were more likely than other parents to report their own experience negatively (Sideropoulos et al., 2021). In one study involving parents across seven countries, UK parents were the likeliest to report that the pandemic had a negative impact on their own mental health (Thorell et al. 2021).

Rurality

342. There were some particular challenges for families living in rural areas. Glass et al. (2021) highlighted that:

> "*Lower population densities and less reliance on and availability of public transport have meant it has been easier to maintain social distancing and thereby reduce spread of the virus in rural areas. However, the economic impact has been severe… in rural Britain, partly because of a higher reliance on the tourism and hospitality sector.*" (2021, p. 1)

343. For many learners in remote areas, this meant greater challenges accessing learning, fewer local resources or support services during lockdowns, and a pronounced digital divide. Although access to online learning appears to have generally improved by the time of the winter school closures in 2020, connectivity remained an issue in rural areas, sometimes due to slow download speeds (Glass et al., 2021; Phillipson et al., 2020).

Assessing the extent to which impacts were short-,medium- or long-term

344. As is the case elsewhere in the report, much of the available evidence comes from England, but in reviewing the smaller number of studies and analysis undertaken elsewhere in the UK, the commonalities seem to be greater than the dissimilarities. The discussion below concentrates on assessing immediate, short-term and medium-term impacts of the pandemic on education. As noted earlier, ways to understand and address longer term impacts are discussed within Chapter 5.

Short-term impacts

345. Short-term effects refer to the immediate and temporary disruptions and adaptations in teaching and learning that occurred during and shortly after the Covid-19 pandemic. This includes school closures, reduced face-to-face instructions, changes to assessment practice, and challenges regarding online learning.

346. Mid-2021, most schools reopened and went back to mainly face-to-face teaching. This allowed learners to re-engage with structured routines and social interactions, which helped improve engagement and attendance. However, Ofsted (2021) noted slow progress in recovery for many schools, with ongoing challenges in behaviour, attendance, and staff workload. This report was based on inspections of 98 primary and secondary schools in England between 25 October and 19 November 2021. In addition, since re-opening, schools continued to deal with the impact of Covid-19 restrictions on learners and staff.

347. During this time, school leaders highlighted a continued impact of the pandemic on the education and personal development of learners. Those who had transitioned into primary and secondary schools had lower starting points than previous years and took longer to settle in. School leaders also noted gaps in learning and in skills. Schools prioritised dynamic, ongoing assessments by teachers to identify learners who needed further support, and inform adaptations to their teaching (Ofsted, 2021).

348. The impact of Covid-19 mid-2021 was also deepened by Covid-related staff absence, postponement of staff training, and disruption to the normal cycle of development and review of school improvement plans (Ofsted, 2021).

349. Even though most schools were open in the autumn of 2021, attendance during this time was still lower than expected. The pre-pandemic absence rate in England, for example, was 4.7% (2018/19), but 7.6% in 2021/22. In Wales the absence rate was 5.7% in 2018/19, compared with 10.2% in 2020/21. As always, care must be taken in reading the data to avoid inappropriate comparison and acknowledge that this increase in absence related to a variety of reasons; children testing positive for Covid-19, Covid-19-related anxiety among both parents and learners, poorer mental health among learners (leading to school absence), rescheduled or rearranged term-time holidays taken by families, and low resilience to setbacks or illness (Office for Standards in Education, Children's Services and Skills, 2021; Welsh Parliament, 2022).

350. Schools were still often unable to provide some of the extracurricular activities commonly provided to enrich pupils' experience either academically or non-academically (trips, concerts, performances) and to encourage a sense of belonging to school, such as assemblies. Once schools reopened, school transition processes resumed as normal and there is evidence that some schools had improved their transition processes. For example, some primary schools worked more closely with parents and early years settings, and some secondary schools created video tours for learners. The relationship between staff and parents of learners with special needs had improved in some schools because of the increased communication during the pandemic (Achtaridou et al. 2021).

351. The Office for Standards in Education, Children's Services and Skills (2021) reported that teachers offered numerous opportunities for learners to revisit and reinforce previous learning while prioritising missed curriculum areas that needed coverage. Schools also offered one-to-one and small group interventions, often led by school staff, targeting specific pupils, including those with special needs. Additionally, some schools implemented extra catch-up sessions before or after school.

Medium-term impact

352. Medium-term impact includes impact that extended until 2022, when schools were fully open again and exam conditions had returned to normal.

353. In early 2022, the Office for Standards in Education, Children's Services and Skills (Ofsted) carried out inspections of 43 primary schools, 48 secondary schools and 14 special schools in England and reported that Covid-19 continued to impact learner attendance, posing an even greater challenge for special schools. Leaders also highlighted ongoing concerns about the pandemic's negative effects on learners' wellbeing and behaviour. However, many also observed improvements in these areas. Despite this progress, a significant number of leaders noted that the youngest children in school (aged 4-5) still required extra support to develop essential social skills, such as taking turns and listening (Office for Standards in Education, Children's Services and Skills, Spring 2022). As noted earlier, the Expert Report on early years and child development prepared for this Inquiry by Davies and La Valle (INQ000587957) addresses these concerns in depth.

354. Between 18 April and 13 May 2022, Ofsted carried out inspections in 9 primary schools, 21 secondary schools and 23 special schools in England and reported that absences caused by Covid-19 had improved but school attendance was still lower

due to Covid-19-related anxiety. Leaders continued to note the negative impact of the pandemic on pupils' well-being and behaviour. By summer of 2022, curriculum enrichment activities had started again.

355. Cancellation of exams (GCSEs, A-levels) in 2020 and 2021 led to the adoption of Teacher Assessed Grades (TAGs), which raised concerns about consistency, fairness, and inflation of grades. In 2022, formal assessments returned but with adjusted content and support, such as advance notice of topics. Concerns persist about the validity of comparisons between pandemic and pre-pandemic cohorts. Whilst exams have been reinstated, the pandemic has prompted debate on the future of high-stakes assessments, with potential for long-term reforms in how learning is assessed (for example, calls for blended assessment models) (Hayward and O'Leary, 2022).

356. However, in the summer of 2022, it was clear that some learners were not as ready for the next stage, with particular concerns raised for the youngest children, showing difficulties with phonics, handwriting, as well as social and behavioural skills, and those in Year 6 moving to secondary school having missed out on foundational learning (Office for Standards in Education, Children's Services and Skills, Summer 2022).

357. The pandemic also brought some unexpected positive changes, including the accelerated use of digital technology and rapid skill development of staff and learners in using digital platforms, software and devices. Some schools in England really saw the benefits of virtual learning and suggested they will continue to use existing and new methods for blended teaching, learning and assessments.

3.3 Summary

358. It is already clear that the impacts of the pandemic on children's learning and attainment were broad and deep. Although we cannot yet fully predict the longevity or severity of these effects, evidence from a range of sources, both UK and international, points to the need to understand, assess and evaluate impacts as thoroughly and comprehensively as possible at this point, so that educational resources, interventions and mitigations can have the best chance of helping recovery. Concerningly, there is a significant gap in current understandings of impact because a) research on Covid-related impacts on education has declined significantly and rapidly (the COSMO study is a valuable exception) and b) most studies to date have relied on the views and experiences of adults, usually

professionals, rather than those with direct experience of the disruptions caused to learning - children themselves.

359. This chapter has reviewed the approaches taken by the four UK governments to monitor and assess the impacts of school closures, lockdowns and other restrictions during the period from 2020 to June 2022. In reviewing experience across the four jurisdictions, it is important to avoid drawing inappropriate comparisons, given the different policy contexts. Caution is also needed in making comparisons based on administrative data from across the jurisdictions, on, e.g., school attendance, behaviour and relationships, disciplinary exclusion and suspension, in view of the historical variation in kinds of data collected.

360. This important caveat notwithstanding, there are still some general, overarching findings and themes which build a picture of the challenges faced, responses and approaches developed and whether and to what extent these did indeed help to mitigate impacts for learners. The main findings are common to learners across the UK.

361. The impacts fall into two broad categories:

a) academic; related to the formal curriculum, testing and assessment

b) personal/social; relating to developmental milestones, social skills and interactions, mental health and wellbeing.

362. The cancellation of national exams in 2020 led to anxiety and stress for learners affected. These exams are traditionally seen as 'high stakes', with consequences for future trajectories in terms of college, university, training or employment. Therefore, there was widespread concern about the cancellations, and about communications regarding alternative arrangements. Alternative arrangements were put in place which relied on teacher-led, school-based assessments. Initial attempts by qualifications agencies to ensure fairness by using algorithms to award final grades resulted in lowering of grades and then an outcry by school leaders and families about unfairness. After moderation, the final grades awarded were higher overall than in pre-pandemic times.

363. Education recovery and a focus on 'lost learning' often pre-dominated when schools re-opened. There was also an explicit commitment in policy for the need to allow learners time to re-adjust and to re-engage with their peers after the long periods of isolation, but these twin priorities sometimes seemed to be in tension with each other

in practice. By the end of the pandemic in 2022, the UK was starting to witness declines in attainment as measured by international tests such as PISA (Programme for International Student Assessment) and national tests such as GCSEs.

364. The majority of children suffered negative impacts from the restrictions imposed by the pandemic, but the burden of these impacts did not fall equally on all children. Some groups and communities were affected more extensively or in different ways. A number of studies found that families appreciated spending time together and some found that not having the strict routines and stress from attending schools helped where their child had special needs (Mullen et al., 2024; Ozsivadjian et al., 2023). The type of school attended was also a factor. That is, independent, private schools were often able to offer continuity of teaching online much more rapidly and consistently than other schools and especially in contrast with special schools. Research indicates that impacts also varied substantially depending on age and stage of learners, gender, socio-economic status, special needs and ethnicity. Where more than one of these factors was present, impacts were often greater. Poverty remained the single most important determinant of experiences and outcomes and where it combined with other factors, negative impacts were often exacerbated.

365. Impacts on mental health and wellbeing are the detailed subject of a separate Report by Newlove-Delgado and Creswell (INQ000587958) to this Inquiry but it is crucial to understand the interconnections between health and wellbeing, relationships and academic achievement. Studies have shown that students with poorer mental health and wellbeing have lower educational outcomes (Brannlund et al., 2017) and this impact is more severe for adolescents compared to primary school students (Burger et al., 2024). Many staff in schools worked far beyond contracted hours to try to offer continuity of support, and under very difficult conditions, which had an impact on their mental health and wellbeing (Ashworth et al., 2024). Their efforts were often highly valued by individual children, parents and families. There is strong evidence of the deleterious impact of the pandemic on children with existing mental health challenges, and it is likely that the current concerns about a general deterioration in behaviour in schools relates, at least in part to the unprecedented level of disruption to normal life which all children and school staff have lived through.

366. Overall, the alternative arrangements put in place were not as effective as being able to attend school in person. Furthermore, given what is known about the gap between the delivery of education to disadvantaged groups, and the disproportionate impact on them in terms of learning and attainment, it is reasonable to conclude that school

closures were detrimental; and the mitigations put in place through remote education failed overall.

Chapter 4. Support for learners with special needs during the pandemic

Summary of support for learners with special needs during the pandemic

Children with special needs often face barriers to learning, and their attainment levels are usually lower than the generality of learners in school. This can have lifelong and life-wide implications. It is generally accepted that the pandemic gave rise to specific and particular impacts for this group of children and therefore this chapter considers these impacts in detail, both during and since the end of the pandemic. It begins by setting out a high-level overview of structures which provide educational support for children with special needs across the UK. Although most learners with special needs qualified as vulnerable students and were therefore able to attend school in person during the pandemic, few were able to do so in practice, for a wide range of reasons. Remote learning was even harder for students with special needs as many of them relied on differentiated materials and specialist equipment or support which was not available to them at home. In addition, the lack of access to professionals during the pandemic, impacted on students with special needs being identified and receiving the appropriate support for their health (including both physical and mental health) and their learning. This lack of support had a significant impact on their families. However, other students who did not rely on specialist support (mainly autistic students) benefitted from learning from home and some parents have chosen to continue home schooling their child as a result. Indeed, attendance numbers for students with special needs have still not entirely recovered. In addition, waiting times for specialist support and identification have not recovered yet either. In sum, the support and experiences for students with special needs during the pandemic were highly variable. However, the pandemic widened educational inequalities for learners with special needs overall, especially among those with more severe and complex needs and very young learners with special needs.

4.1. Overview of support structures for children with special needs across the UK

367. The four jurisdictions have historically taken different policy approaches to provision for learners with special needs. This includes, but also goes beyond, the use of different terminology, and the thresholds for support vary across the different jurisdictions. In England, the preferred term is ‘special educational needs and disabilities’ (SEND). Northern Ireland refers to ‘special educational needs’ (SEN)

while Scotland's official term is 'additional support needs' (ASN) and Wales uses the term 'additional learning needs' (ALN). The 'State of Child Health' Report from the Royal College of Paediatrics and Child Health (2020) offers a useful summary of these definitions and parameters.

Table 13: Definitions and scope of special needs across the UK

England: A child or young person has SEN if he or she has a learning difficulty or disability which means he or she requires special educational provision, which is education or training that is additional to or different from that generally made in mainstream schools. A child has a learning difficulty or disability if they have a significantly greater difficulty in learning than the majority of others of the same age, or have a disability which prevents or hinders him or her from making use of facilities of a kind generally provided for others of the same age in mainstream schools (Children and Family Act, 2014). **Northern Ireland**: Criteria for children and young people with SEND are similar to those in England. A more rigorous framework for schools to support children with SEND was passed in 2016 in the SEND (NI) Act, but is not yet implemented, pending consultation on the regulations and the code of practice (The Education (Northern Ireland) Order 1996). **Scotland**: A child or young person has an Additional Support Need (ASN) if 'for whatever reason, the child or young person is, or is likely to be, unable without the provision of extra support to benefit from school education provided or to be provided for the child or young person'. This is a wider definition than in England and Northern Ireland, as needs can arise from any factor which causes a barrier to learning, including being bullied, being a young parent or carer, or having a parent in prison (Education (Additional Support for Learning) (Scotland) Act 2004). **Wales**: Wales used a very similar definition of SEN to England and Northern Ireland up until 2018 (the period encompassed by the data below). In 2018, the Additional Learning Needs and Education Tribunal (Wales) Act broadened this to providing support for children and young people with Additional Learning Needs (ALN) – those with a learning difficulty or disability (whether the learning difficulty or disability arises from a medical condition or otherwise) which calls for additional learning provision (Additional Learning Needs and Education Tribunal (Wales) Act 2018).

368. It is necessary to understand these differences because interpretation of data on special needs (for example national official statistics) relies on understanding what is included, or not, within that data. In England for example, young carers are not

automatically considered as having special needs, but in Scotland they are specifically mentioned within the statutory Code of Practice (Scottish Government, 2017) under the Education (Additional Support for Learning) (Scotland) Act 2004). Data on young carers was included in the annual pupil census for the first time in 2022/2023 in England, while in Scotland this information has been included for 20 years. As is the case throughout this report, given these kinds of differences, cross-jurisdictional comparison is rarely possible or appropriate. This makes it more necessary to contextualise data on impacts, hence a short outline of provision for learners with special needs in England, Northern Ireland, Scotland and Wales is offered below.

England

369. The Department for Education (DfE) sets the national policy and funding frameworks for special needs provision in England. The DfE introduced wide ranging changes to arrangements for learners with special needs and disabilities (SEND) in the Children and Families Act 2014 and associated Regulations and a new Code of Practice in 2014. Under the 2014 regime, learners with special educational needs are children or young people with a learning difficulty or disability which calls for special educational provision to be made for them. That special educational provision may be provided within the SEN support offered by mainstream schools. However, the legislative and policy framework also recognises that some learners need more substantial support than can be reasonably provided from within the resources normally available to mainstream schools. The Code of Practice also recognises that some learners need more substantial support than can be provided through SEN support. These children often require input from specialists such as speech and language therapists, occupational therapists, physiotherapists, as well as educational and mental health specialists such as educational psychologists. These learners with SEND are supported through an Education, Health and Care Plan (EHCP), a statutory document that outlines the support a child or young person with special needs requires to meet their educational, health, and social care needs.

370. Local authorities hold primary responsibility for ensuring learners with SEND receive appropriate educational provision and support while schools have the responsibility to identify and support learners with SEND (both those requiring SEN support and with an EHCP) within their setting. Learners with SEND may be supported in both mainstream and specialised settings. Local authorities are responsible for assessment of learners with SEND and for determining whether they require an

EHCP. Local authorities co-ordinate with Health & Social Care to provide joined-up services for children needing therapy, mental health support, or social care. They are required to provide that support and ensure learners receive appropriate provision, whether in mainstream or special education. They are responsible for funding SEND services and allocating resources, including top up or 'High-Needs' funding to schools and settings. This grant is ring fenced and separate from the other two block grants given to local authorities from central government, that is, the schools grant and early years blocks. 'High Needs' funding refers to:

370.1. provision for children and young people with special educational needs and disabilities (SEND) who require additional resources to participate in education and learning, mainly in schools and colleges, from their early years to age 25 (excluding young people aged 19 to 25 who do not have an education, health and care plan (EHC) plan, and individuals who are over the age of 25); and

370.2. children up to age 16 in alternative provision (AP) who, because of exclusion, illness, or other reasons, cannot receive their education in mainstream or special schools.

Northern Ireland

371. Northern Ireland offers a dual system of mainstream and specialist provision: mainstream schools (providing inclusive education with in-class support); special schools (catering specifically for children with complex needs) and learning support centres (within mainstream schools for targeted interventions). Different types of schools, such as integrated and faith-based schools, follow these same special needs policies.

372. The central piece of legislation which governs provision for special needs is the Education (Northern Ireland) Order 1996, which states that a child has Special Educational Needs (SEN) if they have a learning difficulty or disability that calls for special educational provision to be made for them. A learning difficulty is defined as a significantly greater difficulty in learning compared to peers, or a disability that prevents or hinders learners from making use of educational facilities generally provided. The SEN Code of Practice (1998) outlines three 'stages' of support:

372.1. School delivered support;

372.2. School delivered support plus external provision; and

372.3. Statement of SEN (where provision is made by the school, local educational authority and any other relevant service or agency.

373. The Special Educational Needs and Disability (Northern Ireland) Order 2005 (SENDO), expanded the Education Order of 1966 and strengthened anti-discrimination provisions, including the right of children with special educational needs to be educated in mainstream schools, and ensuring that children with disabilities are not disadvantaged in educational settings. Statement of SEN is a statutory document managed by the Education Authority. The Education Authority responsible for a child's Statement of SEN has a legal duty to secure the special educational provision specified in the Statement, although this may in practice be delivered by the school or other relevant services or agencies.

374. The most recent legislation is the Special Educational Needs and Disabilities Act (Northern Ireland) 2016 which sets out a reinforced commitment to a person-centred approach and replaces Individual Education Plans with Personal Learning Plans (PLPs). These are non-statutory documents created and maintained by the school's Special Educational Needs Coordinator and teachers, sometimes with input from external professionals. It is important to note that at the time of writing, some provisions of the 2016 Act have not yet been commenced. However, a new document aimed at supporting children with complex educational needs was recently published (Northern Ireland Education Authority, undated) for 2023 to 2024.

Scotland

375. In Scotland, children are considered for support where an additional support need (ASN) has been identified. The Support for Learning Code of Practice (2017, p. 11) provides a list of reasons why children may require that support.

375.1. "*Children or young people may require additional support for a variety of reasons and may include those who:*

375.2. have motor or sensory impairments;

375.3. have low birth weight;

375.4. are being bullied;

375.5. are children of parents in the Armed Forces;

375.6. are particularly able or talented;

375.7. have experienced a bereavement;

375.8. are affected by imprisonment of a family member;

375.9. are interrupted learners;

375.10. have a learning disability;

375.11. have barriers to learning as a result of a health need, such as fetal alcohol spectrum disorder;

375.12. are looked after by a local authority or who have been adopted;

375.13. have a learning difficulty, such as dyslexia;

375.14. are living with parents who are abusing substances;

375.15. are living with parents who have mental health problems;

375.16. have English as an additional language;

375.17. are not attending school regularly;

375.18. have emotional or social difficulties;

375.19. are on the child protection register;

375.20. are refugees; or

375.21. *are young carers.*"

376. This list is intended to be indicative, not exhaustive, and aims to recognise that learners may have more than one need and that needs may vary over time and/or be short or long term. The needs are defined broadly to include support which is different from, or additional to, that which is normally provided. This approach is not solely reliant on diagnostic labels or medicalised understandings, but rather focuses on the specific everyday needs of the child and the support needed to help them succeed in their educational environment. In common with the other UK jurisdictions, this support may be offered within mainstream schools or in more specialised settings, depending on the level and complexity of need. For children who have multiple or complex needs, Coordinated Support Plans (CSPs) are used. These are statutory plans, although they differ in material respects from EHCPs, or Statements of SEN.

377. Scottish education maintains a 'presumption of mainstreaming', most recently reconfirmed just before the pandemic (Scottish Government, 2019), which ensures that learners with ASN have the right to be educated in mainstream schools wherever possible. However, if a child's needs are best met in a specialised setting, such as a special school, this option is also available.

Wales

378. The most recent guidance on support for learners with additional learning needs (ALN) in Wales was implemented through the Additional Learning Needs and Education Tribunal (Wales) Act 2018, which is gradually replacing the previous Special Educational Needs framework. This new system aims to provide equitable and comprehensive support to all learners with additional learning needs aged between 0 to 25 years.

379. The ALN system replaces the framework of support plans (including statements of SEN, individual education plans (IEPs) for learners on school action/school action plus, and Learning and Skills Plans (LSPs) for post-16 learners) with an Independent Development Plan (IDP). Where it is decided that a child or young person, up to the age of 25, has additional learning needs, they will generally be entitled to an Independent Development Plan, no matter where they are educated. In contrast to England, where only some learners qualify for an Education, Health and Care Plan, the ALN system extends rights to statutory plans to all learners with ALN; having an Independent Development Plan is not limited to only those with the most severe or complex needs.

380. In Wales, according to the ALN Code (2021), it is for the school to decide whether the learner has additional learning needs (ALN) and, if so, put an Independent Development Plan in place. Schools can refer such decisions to the local authority if: (1) determining the extent and nature of the learner's ALN, or the additional learning provision (ALP), that they require is beyond the school's capability or (2) it would not be reasonable for the school itself to secure the required ALP. Local authorities are responsible for maintaining IDPs for learners with ALN who: do not attend a maintained school, pupil referral unit or further education institution, are registered at more than one setting, have ALN that calls for additional learning provision it would not be reasonable for the governing body to secure. In addition, local authorities are responsible for maintaining Independent Development Plans for children with ALN who are looked after by the local authority.

381. While the paragraphs above outline the statutory support available to students with special educational needs during normal times, temporary legislation was introduced during the Covid-19 pandemic to ease these legal duties. In England, the Special Educational Needs and Disabilities (Coronavirus) Regulations 2020 were in effect from May to September 2020. In Wales, easements under the Coronavirus Act applied from May to July 2020, while in Scotland, the Coronavirus (Scotland) Act was in place from 6 April to 30 September 2020. Northern Ireland, however, did not introduce any legislative easements, and statutory requirements for SEND support remained unchanged.

382. In summary then, each jurisdiction devolves responsibility to local authorities to co-ordinate, resource and monitor support for children with special needs. Each also expects schools to take a lead role in identifying learners who may benefit from support and to work with parents and other agencies and professionals to put that support in place. This means that during the pandemic the experiences of parents and students with special needs were often very different, often compared to a post-code lottery (Hutchinson, 2021). All four jurisdictions offer support to the majority of learners with special needs within mainstream primary and secondary schools, but also provide some specialised provision, whether that be special units attached to mainstream settings or in special schools. While there are many similarities, then, there are also jurisdictional legal and policy differences, most obviously in understandings of the parameters of the term special needs itself. This has shaped differences in national priorities within official guidance and provision before and during the pandemic, and continues to do so.

383. These differences notwithstanding, school staff and school leaders in all four jurisdictions shared serious concerns about resourcing of this support as the UK entered the pandemic. In England, resourcing of special needs, including 'high needs' funding, had come under increasing pressure since its introduction in 2013/14 (Perera, 2019), and prior to the pandemic, there was a growing concern about a crisis in special needs. These strains were in addition to the pressures arising from under-resourcing of education overall, due to financial constraints on public sector finances. In Scotland, prior to the pandemic, a survey of 12,000 teachers by a major trades union reported that nearly 80% felt that support for children with special needs in their school was inadequate. As one respondent noted:

> "*There is a strong desire and willingness to meet the needs of all children in school; however, the presumption of mainstreaming is grossly underfunded…*

When identified as needing small group learning, there are no places available. The catch-all is that it is the duty and responsibility of all teachers to meet the needs of all children in their class." (Educational Institute of Scotland Membership Survey, 2019, p.23).

384. Concerns about workload, resourcing of support, staff wellbeing and pay were, and remain, widespread (see, inter alia, Knight et al., 2022; Warnes et al., 2022).

Size and shape of the population of learners with special needs in the UK

385. This section provides information about the total number of learners with special needs in the UK and the main reasons they need that support. It then looks in detail at the ways in which support changed during the pandemic and the impacts on attainment, key transitions (e.g. from primary to secondary school), resilience and wellbeing, friendships and relationships. Finally, this section notes the impacts for schools, looking to identify and support young people and their families for the first time.

Numbers of learners with special needs

386. The number of learners with special needs has been increasing in all sectors and across all jurisdictions, with this trend starting before Covid-19.

Table 14: Numbers of learners with special needs and percentage of total school population educated in each sector

	Before Covid-19 (2018 to 2019)					During the Covid-19 period (2020 to 2021)					Post pandemic (2022 to 2023)				
	No. of learners with SEND	No. of SEND in Mainstream pri[1]	No. of SEND Mainstream sec	No. of SEND in Special schools	No. of SEND in Independent	No. of learners with SEND	No. of SEND in Mainstream pri[1]	No. of SEND in Mainstream sec	No. of SEND in Special schools	No. of SEND in Independent	No. of learners with SEND	No. of SEND in Mainstream pri[1]	No. of SEND in Mainstream sec	No. of SEND in Special schools	No. of SEND in Independent
England	1,318,300 (14.9% of total school population of 8,819,289)	676,155 (14.3% of learners have SEND)	413,790 (12.4% of learners have SEND)	137,900[2] (90.5% of learners have SEND)	90,485 (15.6% of learners have SEND)	1,408,701 (15.8%)	681,897 (14.6%)	469,933 (13.5%)	150,885[2] (98.3%)	102,273 (17.9%)	1,473,046 (16.4%)	711,842 (15.3%)	501,908 (14.1%)	157,677[2] (94.5%)	110,257 (19.0%)
Scotland	215,897 (30.9% of total school population of 697,989)	107,635 (26.9%)	101,130 (34.6%)	7,132 (100%)	No data available	232,753 (33.0%)	108,085 (27.7%)	117,078 (38.2%)	7,599 (100%)	No data available	259,036 (36.7%)	116,923 (30.4%)	134,371 (42.9%)	7,742 (100%)	No data available
Wales	103,976 (22.2% of total school population)	56,882 (20.6%)	42,114 (22.4%)	4,982 (100%)	No data available	92,688 (19.5%)	47,890 (17.5%)	39,578 (20.1%)	5,220 (100%)	No data available	63,189[3] (13.4%)	30,352 (11.5%)	27,1542 (13.5%)	5,683 (100%)	No data available

Notes:

It is unclear where the data for learners in Alternative Provision (AP) & Pupil Referral Units (PRUs) lies for Wales. Neither Northern Ireland nor Scotland have pupil referral units. England, Northern Ireland and Wales also provide 'education other than at school' (EOTAS) although their systems differ.

In Wales, primary and nursery schools are presented as primary; middle and secondary schools are presented as secondary. In all other jurisdictions, nursery is excluded from the figures for primary.

Special, non-maintained special and Pupil Referral Unit/Alternative Provision combined (England only). Not all pupils in Alternative Provision are identified as having special educational needs, hence figures do not total 100% in this sector.

2023 figures in Wales should be treated with a degree of caution, since changes in their ALN Code meant a removal of some pupils with low level needs and the cessation of the term 'General learning difficulties' due to a systematic review by schools of their special needs registers in readiness for the rollout of a new system.

The definition of alternative support need in Scotland is much broader than definitions of SEN and ALN in other nations, which accounts for the elevated Scottish figures.

Source: Department for Education, Explore Education Statistics 2018 to 2019, 2020 to 2021, 2022 to 2023; Welsh Government School Census 2018 to 2019, 2020 to 2021, 2022 to 2023; Scottish Government Summary statistics 2019, 2021, 2023

387. Data from Northern Ireland is presented in a different format and it is not possible to disaggregate the number of learners with special needs by sector. However, numbers of learners educated in the special school sector, comprising 39 schools in total, has been rising steadily, although the percentage of these pupils by total pupil enrolment is not publicly available.

Table 15: Numbers of learners with special needs

	Before Covid-19 2018-19	During Covid-19 2020-21	After Covid-19 2022-23
Number of pupils with special needs	5,959	6,403	6,930

Source: Northern Ireland Statistics and Research Agency, School Census Key Statistics infographic 2018-19, 2020-21, 2022-23.

Notes

It is unclear where the data for learners in Alternative Provision (AP) & Pupil Referral Units (PRUs) lies for Wales. Neither Northern Ireland nor Scotland have pupil referral units. England, Northern Ireland and Wales also provide 'education other than at school' (EOTAS) although their systems differ.

1. Primary and nursery schools Middle and secondary schools. 2. Special, non-maintained special and Pupil Referral Unit/Alternative Provision combined (England only). 3. Not all pupils in Alternative Provision are identified as having special needs, hence figures do not total 100% in this sector. 4. 2023 figures in Wales should be treated with a degree of caution, since changes in their ALN Code meant a removal of some pupils with low level needs and the cessation of the term 'General learning difficulties' due to a systematic review by schools of their special needs registers in readiness for the rollout of a new system

Characteristics of learners with special needs

388. In England, before Covid-19, 295,000 students had an EHCP and the largest groups of learners with SEND that received an Education, Health and Care Plan included those with Autism Spectrum Disorder, 'Speech Language and Communication Needs' and those with 'Social Emotional and Mental Health' needs. The largest categories of those who required SEN support included those with Speech, Language and Communication Needs, those with Moderate Learning Difficulty and those with Social Emotional and Mental Health needs (statistics.service.gov.uk). Although the number of learners in each category has increased (see Table 14), the categories of major needs have not changed since the start of the pandemic.

389. In Northern Ireland, in 2019, 79,000 pupils in schools had some form of special educational needs, 22.8% of the entire school population. Of this, more than 18,000, or 5.3% of pupils, had a statement of special educational needs (of which 27.5% were female and 72.5% male) (DENI, 2019). No information is available as to the types of special needs these figures cover.

390. In Scotland, in 2019, 215,897 learners (30.9% of all pupils) had an additional support need (ASN) recorded. 58.4% were boys. This represented a rise of 2.2 % on the previous year. The proportion of children with an ASN had seen year on year increases over the previous decade, although the Scottish Government ascribed this, in part at least, to better recording and an expansion of identified additional need types. The most commonly identified ASNs were 'social and emotional behavioural difficulties' (49,012 pupils – 22.71% of all pupils for whom the support is reported), 'English as an additional language', (38,359 – 17.82%), and 'other moderate learning difficulties' (30,410 – 14.09%). Autism Spectrum disorder accounted for 19,701 -9.13% of all ASN and 'mental health problems' for 6,047 – 2.80% (Scottish Government, 2019a). In 2024, 40.5% of learners had ASN (Scottish Government, 2024), though as was found elsewhere, the leading categories of special needs have largely remained the same.

391. In Wales, there were 136,826 reports of special needs by type in January 2019, with the three most frequent categories being 'general learning difficulties' (35%), 'behavioural emotional and social difficulties' (24%) and 'speech, language and communication difficulties' (23.7%). In January 2024, the number of reported special needs types was much lower, probably as a result of the new ALN code that was introduced in 2021. The most frequent types of need were classified as 'speech, language and communication difficulties' (35%), 'behavioural emotional and social

difficulties' (31.8%) and 'moderate learning difficulties' (22.5%). (Data taken from school census:https://www.gov.wales/schools-census-results).

Absence rates pre- and post-Covid

392. Although absences pre-Covid-19 were already higher for children with special needs compared to those without special needs (typically about 5% for state funded primary and secondary schools in England), absence rates for all learners, including those with special needs have shown a particularly sharp increase since 2020.

Table 16: Percentage of pupil absence for England, Scotland and Northern Ireland by sector in 2018 to 2019 and 2022 to 2023[1], rounded to 1 decimal place

	2018 to 2019			2022 to 2023		
	Primary	Secondary	Special	Primary	Secondary	Special
England	5.5	7.1	13.5	7.9	11.2	16.6
Scotland	5.4	9.2	9.8	7.8	12.2	12.8
Northern Ireland	4.8	7.1	10.0	6.4	10.5	14.2

Table 17: Percentage of pupil absence for Wales by special needs in primary and secondary schools in 2018-19 and 2022 to 2023. The rates in 2018-2019 were already higher than for students without special needs

	2018 to 2019		2022 to 2023	
	All pupils	Special needs	All pupils	Special needs
Primary	6.2	8.7	8.0	11.1
Secondary	5.3	6.8	11.5	17.4

Notes

Absence is defined as not attending school for authorised reasons (such as illness) or unauthorised reasons (such as term-time holiday). Exact reasons for authorised and unauthorised absence differ slightly between each of the four jurisdictions. Absence statistics do not include children excluded from school for behavioural reasons.

[1]No data collected in Northern Ireland for 2022 to 2023 due to industrial action or software issues. 2023 to 2024 data is presented instead.

[2]Data for special school sector not available.

Sources

https://www.gov.wales/absenteeism-secondary-schools-september-2022-august-2023-revised-html

https://www.gov.wales/absenteeism-primary-schools-september-2022-august-2023-html

https://www.education-ni.gov.uk/articles/pupil-attendance

4.2. School attendance of learners with special needs during Covid-19

393. This section focuses on the in-person attendance of learners with special needs. This is described per separate jurisdiction as each had different school closure timelines and different rules as to whom was allowed to attend school in person (see Chapter 2 for details on school closures from 2020 to 2022).

394. Data about in-person attendance is variable in quality. It is clear from the information available that the number of learners with special needs attending schools in person differed from week to week but, unfortunately, different reports for the same jurisdiction state different numbers, so the precise number of children with special needs that attended school in person is unclear. The information below provides an overview which shows that the number of learners with special needs who attended

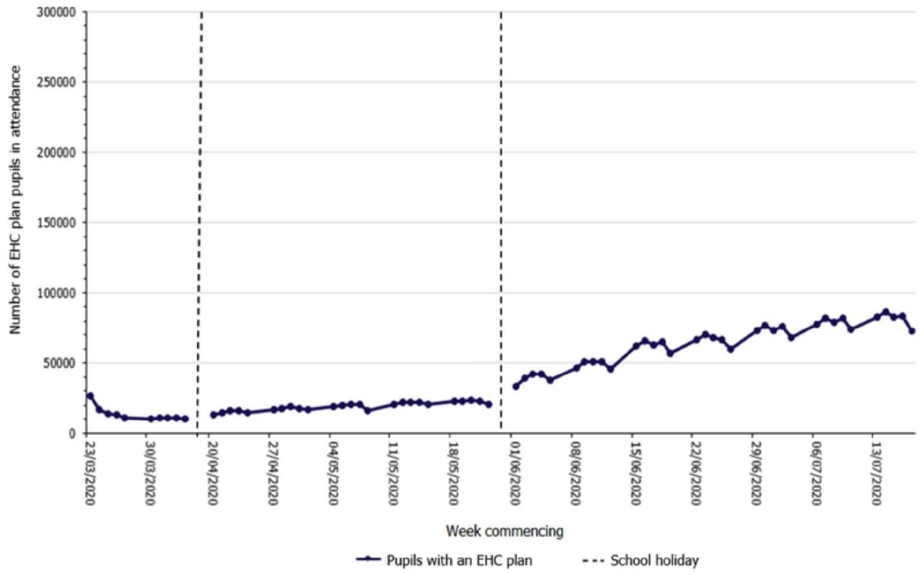
in person was low, and that attendance differed between the different jurisdictions, but beyond these broad headlines, it is difficult to be confident about the accuracy of the data.

In person attendance of learners with special needs in England

395. In England, schools were closed to most children during the first (20 March 2020 to 15 June 2020 for year groups seen as especially crucial or September 2020 for all groups) and third national lockdown (4 January 2021 to 8 March 2021). However, children from families of keyworkers and vulnerable children were allowed to attend in-person education. The definition of 'vulnerable children' included those who have a social worker and those with an Education, Health and Care Plan (EHCP) (see paragraph 122 for further discussion). Schools were also given flexibility to provide for other vulnerable students, if they felt they were able to do so (Department for Education, 2020). However, in reality those receiving special needs support without an EHCP were not systematically offered a place to attend in-person education (Ashworth et al. 2023). The latter accounts for approximately 1.1 million learners in England. Therefore, many learners with special needs were, like others, not able to go to school when schools were closed during the national lockdowns (Howard et al., 2021; Skipp et al., 2021).

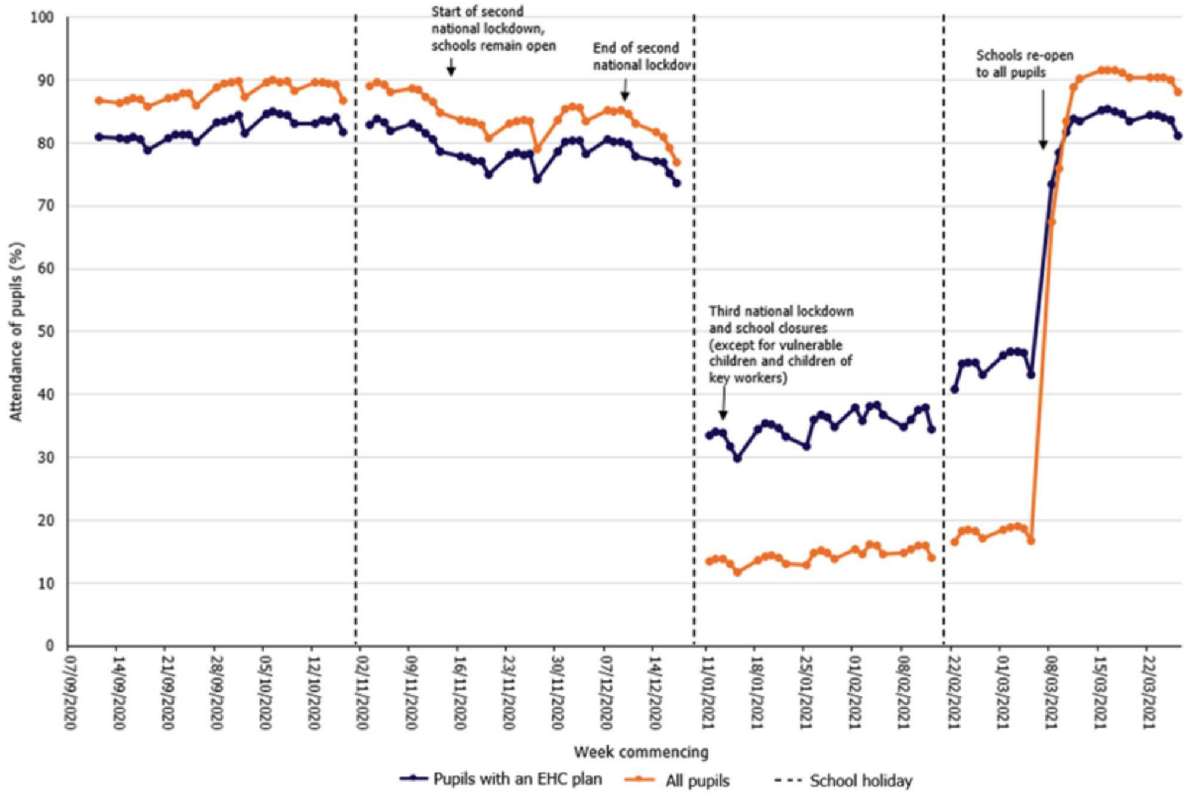
396. As can be seen in Figures 13 and 14, whilst learners with an EHCP were eligible to attend school throughout national lockdowns (295,000 learners at the time), those in school still only represented a small proportion of all learners with an EHCP, therefore, the majority remained at home. For those who were in school during the lockdowns, the number of hours spent studying in school was likely to be less than before the pandemic (Ofsted, 2021). Staff in special settings were reportedly spending around a quarter (26%) of their usual teaching time focusing on implementing measures such as testing, reacclimatising and assessing needs, instead of teaching (Sharp & Skipp, 2022).

Figure 13: Children and young people with an EHCP attending state-funded education settings from 23 March to 17 July 2020, from a total of 295,000



Source: Ofsted, 2021

Figure 14: Proportion of learners in attendance in state-funded education settings from 11 September 2020 to 23 March 2021



Source: Ofsted, 2021

397. When schools and colleges opened fully to all learners in September 2020, not all those with special needs in England returned. Disadvantaged learners and those with special needs had, on average, two more days of absence in autumn 2022 compared to 2019. By autumn 2023, they showed the smallest reduction in absence rates among all learner groups. While other learners experienced some decline in absence days over that period, learners with an EHCP saw an increase in absences. This shows that since the pandemic, the attendance rates of learners with special needs have not recovered in England (Education Policy Institute, 2024).

In person attendance of learners with special needs in Northern Ireland

398. In Northern Ireland, only around 0.8 to 2.5% of educational settings were open during the first lockdown (18 March 2020 to 31 August 2020). A small percentage of learners attended school in person. The majority were those from families with key workers, with only 1.5% of those identified as vulnerable (see Chapter 2 for more information

on vulnerable children) attending schools in person during the first lockdown (Sibieta & Cottell, 2020). When schools reopened in August 2020, those in special schools had the lowest attendance rate (<85%) (Sibieta & Cottell, 2021).

In person attendance of learners with special needs in Scotland

399. Only about 1% of eligible children and young people, and 4% of those classified as vulnerable, attended Scotland's hub schools during lockdowns. While the stigma of being perceived as 'vulnerable' and fear of infection likely contributed to the low uptake, research with parents of learners with special needs suggests that unclear eligibility criteria also played a role (McCluskey, 2023). Additionally, hub schools often lacked the necessary support for children with complex additional needs. There is no disaggregated data on who accessed these hubs, who did not, and why. However, it appears that the majority of attendees were children of key workers (McCluskey et al. 2023).

In person attendance of learners with special needs in Wales

400. Before Covid-19, in 2018-19, the absence rate for learners with an SEN statement was 7.7% in primary schools and 7.8% in secondary schools (Welsh Government, 2023, p5). However, during the first lockdown, only 4% of vulnerable learners were accessing education in person (Sibieta & Cottell, 2020 EPI). When schools reopened, those in special schools had the lowest attendance rate (<85%) (Sibieta & Cottell, 2021) and the proportion of learners with special needs who have more than 10.5 absences has doubled since before the pandemic (Wales Attendance Review, 2023).

In person attendance of learners in specialist settings

401. Many schools, including (but not exclusively) those with high proportions of learners with special needs, found the period between lockdowns when the children had returned to school to be very challenging. The combination of having to manage learners within groups or 'bubbles' and having to deny access to learners' routines and spaces due to restrictions associated with the pandemic caused difficulties for school leaders, teachers and learning support staff, and, more especially, for learners themselves (Waters-Davies et al., 2022).

402. There is limited data on attendance for students in specialist settings within the data described above. One survey study that approached all 1,694 special schools and colleges in England during 3rd of July to 3rd of August 2020 received a 12% response

rate (Skipp et al., 2021). Based on this study, it is estimated that 89% of specialist settings remained open during the first lock down. However, whilst they remained open they did not provide for all students. Only 1 in 10 schools (10%) reported operating at or near full capacity between March and the end of July. The number of places offered was not linked to school size, meaning larger schools were not necessarily able to offer more places. The number of students that were allowed to attend these specialist settings in person depended on several factors, including the risk assessment carried out by the school, the availability of teachers and the availability to adhere to social distancing (in terms of space as well as the student being able to understand the rules). Among schools with at least one pupil attending, over half (52%) said they could offer places to fewer than 40% of their usual pupil numbers (Skipp et al., 2021).

403. Specific challenges related to specialist settings providing in person attendance in schools, included the fact that whilst mainstream schools had to provide for a few, most children in specialist settings are considered to be vulnerable and thus these settings were expected to cater for most students. However, they often did not have the staff to do so, not only to maintain the ratio of staff-students required but also because they required staff with specific skills. In addition, social distancing measures could not always be implemented due to a lack of physical space (Skipp et al., 2021). Leaders of specialist settings also mentioned that they often felt that governmental guidance with respect to specialist settings was often lacking or overlooked particular issues (Skill et al., 2021; Crane et al., 2021). For example, whilst specialist settings were expected to provide for all and remain open, the guidance did not take into account that many students with special needs in these settings lived further away from these settings and required specific transport arrangements. Leaders of specialist settings also reported that government guidance often failed to address their specific circumstances (Skipp et al., 2021; Crane et al., 2021). For example, while these schools were expected to stay open some schools served both residential and day pupils—forcing leaders to make difficult decisions about which groups to prioritise (Skipp et al., 2021). In the absence of tailored guidance, school leaders in specialist settings often had to interpret risks and safety measures independently, resulting in varied approaches to provision (Skipp et al., 2021; Crane et al., 2021).

404. In summary, across all four jurisdictions, only a minority of learners with special needs attended school in person, even where they were entitled to a place. This was

even more the case for those with complex additional needs or severe medical conditions. The main reasons for the low rates of attendance were that:

404.1. the child had an identified special need but not a statutory or formal statement of that need and was told they could not attend by the school (Ofsted, 2021);

404.2. the child had a statutory or formal statement (e.g.EHCP, IDP) but was told by the school to stay at home (This affected 40% of the parents surveyed according to Ashworth et al., 2023);

404.3. parental concern about risk of infection through in-person attendance, for example because a member of the household was shielding;

404.4. potential stigma of being identified as 'vulnerable';

404.5. schools' concern that they could not meet the learner's health or personal care needs (Paterson et al., 2024);

404.6. lack of transport (Ofsted, October 2020); and

404.7. staff illness and shortages (Ofsted, October 2020).

405. Additionally, evidence suggests that many parents found the guidance unclear, being either uncertain about their child's eligibility to attend or concerned about the safety of doing so (Ashworth et al., 2021).

4.3. Online learning for learners with special needs during Covid-19

406. The following section describes the online learning experiences of learners with special needs. These are described across the four jurisdictions, as experiences were similar regardless of jurisdiction.

Access to online learning for learners with special needs

407. Online learning can provide many benefits (Hattie, 2009), including for learners with special needs, due to the multimodal presentation and augmented features that online materials often provide (e.g.sub-titles, recording options), greater opportunities for differentiation, higher motivation of learners, individual pace of learning, lack of distractions by peers and the fact that some perceive online learning socially less threatening. However, in order for learners with special needs to benefit from online learning, each child's individual needs, the combination of learning difficulties, and features of the used technology that may affect the learning need to be considered

(Bravo et al., 2020). For example, many learners with special needs rely on manipulatives (physical objects used in teaching to make abstract concepts more concrete and tangible) or specialist technology to access the curriculum, and these supports were not always available at home, or compatible with online learning platforms. Many studies that focused on learners with special needs and online learning reported difficulties in terms of access to tools and resources, the need for parental or caregiver support, the quality of the teaching materials and support from schools, and that several groups were disproportionally impacted by online learning.

Digital tools and resources

408. The shift to online learning during Covid-19 widened the digital divide, with many learners with special needs facing barriers due to limited access to devices, internet, and assistive technology (Paterson et al., 2023; Shaw & Shaw, 2023). Some families had to buy or borrow devices (Couper-Kenney & Riddell, 2021), while others lacked essential resources such as essential equipment and software (Kouroupa et al., 2022).

409. While some schools distributed laptops, 89% of parents reported their child did not receive necessary special needs-specific technology (for example, accessible/assistive software and applications such as screen readers and Picture Exchange Communication Systems) (Ashworth et al., 2024).

410. In sum, most families heavily relied on their own resources to facilitate home schooling. These disparities highlight the need for more equitable digital access and tailored educational support for learners with special needs.

Parental and caregiver support

411. Parents of learners with special needs faced significant challenges in supporting their child's learning during online education. Many struggled to maintain their child's attention and help them understand subject material (Bates et al., 2022). In schools, many learners with special needs are supported by one-to-one or specialist support, and parents were required to take on this supportive role in order for their child to access any learning. Nearly half (48.6%) of parents of children with Down Syndrome reported finding home-schooling particularly difficult (Pagnamenta et al., 2023). Without a teacher physically present, parents often had to take on additional roles, such as teaching their child how to use online platforms (Paterson et al., 2023). Home-schooling also exacerbated inequalities, as children with better-educated

parents who felt confident in supporting learning were at an advantage. Parents of learners with special needs found it especially difficult to establish routines, balance other caregiving responsibilities, and ensure their child completed schoolwork (Bates et al., 2022), especially when they had other children or more than one child with special needs. These challenges contributed to parental anxiety and guilt, with common concerns including whether their child had learned enough, whether they had taught them correctly, and whether they were failing as parents (Greenway & Eaton-Thomas, 2020).

Quality of remote teaching and support

412. The quality of resources and support for learners with special needs during remote learning varied significantly (Mullen et al., 2024). Many parents reported that online learning was inaccessible due to undifferentiated work, a lack of individualised support, and platforms that did not accommodate their child's special needs, leading to frustration and setbacks (Ashworth et al., 2021; Greenway & Eaton-Thomas, 2020; Shaw & Shaw, 2023).

413. Just 46% of schools in England said they offered additional remote learning arrangements for learners with special needs (Ofsted, 2021). This was often caused by the belief that non-digital solutions were preferable to their digital alternatives, especially for learners with special needs who risk sensory overload when working at a screen. As such, some schools offered a remote curriculum, instead of a digital one, to make the learning more 'tangible'. Schools placed importance on a timetable that mirrored the in-person timetable to minimise changes in routines, which can be severely disruptive to some learners with special needs. The most effective solutions for learners with special needs were bespoke, taking into account the specific needs and circumstances of each individual child (Ofsted, 2021).

414. Still, 59% of parents of a pupil with special needs said that their child was disengaged with remote learning, compared with 39% of parents of children without additional needs (Ofsted, 2021) and there was wide variability in terms of the support that parents and learners with special needs received. While 62% of parents felt they received good contact from schools, 72% believed the educational support provided was insufficient (Greenway & Eaton-Thomas, 2020). In England, 58% of parents reported little or no contact from schools and only 23% were satisfied with the support they received (Ashworth et al., 2023). Thorell et al. (2021) conducted a quantitative survey in seven European countries and found 33.6% of UK respondents

who had a learner with special needs received no contact from the pupil's school to discuss home schooling.

415. As learners lacked access to the tailored resources available in school, they often received fewer than four hours of structured online learning per day, compared to an average of four hours for students with no special needs. Although some parents in Northern Ireland noted improvements in the quality of resources compared to the first lockdown (Purdy et al., 2021), many still felt unsupported.

416. Despite these challenges, families found creative ways to facilitate learning through everyday experiences, as formal online schooling often caused distress (Canning & Robinson, 2021). Some schools excelled in supporting families, prioritising clear and regular communication, which helped build strong partnerships and improve learning experiences (Crane et al., 2021).

Specific concerns and challenges by type of special need

417. Concerns about online learning varied depending on the type of special need. Parents reported, in particular, that learners with attention difficulties and difficulties with self-regulation struggled to engage with online learning (Ashworth et al., 2023). Children and young people with visual impairments faced significant challenges due to the loss of practical, hands-on learning and the unavailability of specialist software and equipment at home (Royal National Institute of Blind People, 2020).

418. Educational professionals expressed additional concerns about the increased use of technology for learners with social, emotional, and mental health difficulties (Boddison & Curran, 2022), which may lead to information overload, reduced face-to-face social interactions and thus reduced opportunities to develop social skills (Lattie et al., 2019). Learners with working memory difficulties were also particularly affected, requiring extra support to manage online learning effectively (Walter et al., 2021). For autistic learners, experiences were mixed—some parents reported that their children felt overwhelmed by the workload and sensory aspects of online platforms, leading to anxiety and withdrawal, while others saw benefits in home schooling, such as the flexibility to learn in different environments and focus on personal interests. Some children were also calmer without the stress of social interactions with peers (Canning & Robinson, 2021; Hall et al., 2024).

Specific provision and adaptations for learners with special needs to access online learning

419. Whilst Oak National Academy provided accessible resources for students with special needs, only 56% of teachers used the materials in the six months leading up to June 2021 (ImpactED, 2021) and thus, many learners with special needs faced significant challenges due to the lack of adapted resources and specific provisions during periods of remote learning. As noted above, most of the work provided by schools was not differentiated (i.e. it was not adapted to the needs of the student), making it difficult for learners with special needs to engage with the content (Ashworth et al., 2023). This led to parents and guardians modifying materials to support their children's learning at home (Paterson et al., 2023). Some parents criticised teachers for setting generic learning tasks that did not account for their child's individual needs (Bates et al., 2023), with many contacting schools specifically to request adaptations for homework (Bates et al., 2023). The lack of structure and support during lockdown made home-schooling particularly difficult for parents of learners with special needs, especially at the post-primary level (Bates et al., 2023).

420. Many parents reported dissatisfaction with the quality of school resources, with 75.6% stating they were not good and 76.3% finding them unhelpful (Shaw & Shaw, 2023). It is worth noting that it is unclear whether this statistic is higher than pre-pandemic as there does not appear to be any baseline data to aid comparison.In many cases, the materials were either beyond the child's developmental level, difficult to read, or inaccessible through online platforms or not compatible with accessible technologies. While 69.2% of schools provided resources via a Virtual Learning Environment (VLE), 70.7% of parents found it difficult to access these materials, and 61.6% struggled with the technology required to support their child (Shaw & Shaw, 2023). In a UK-wide survey (N=238), parents also expressed feelings of inadequacy and unpreparedness for home-schooling, with over half indicating that the resources were not appropriate for their child's needs (Greenway & Eaton-Thomas, 2020). While two-thirds of these parents attempted to follow the curriculum, less than half found it useful (Greenway & Eaton-Thomas, 2020).

4.4. Impact of disruptions to teaching for learners with special needs

421. The impact of online learning on learners with special needs was mixed, with both positive and negative experiences reported. Some families found that the home environment provided a safer and more relaxed space for learning, allowing children

to engage at their own pace without the pressures of a traditional classroom (Canning & Robinson, 2021). However, for others, home became a less safe environment. Increased victimisation was observed among learners with special needs, who were more likely to be picked on or hurt by their siblings as lockdown progressed. By the third month of lockdown, three out of four learners with special needs were experiencing victimisation, while four out of five were also engaging in aggressive behaviour toward their siblings. Although these rates decreased after lockdown, they did not return to pre-lockdown levels (Toseeb, 2021). Unfortunately there does not appear to be research looking at experiences later in the pandemic or since it ended. It is currently unclear whether learners without special needs experienced the same issue.

422. There was lots of variability in the experiences of parents and students with special needs. Many parents reported significant difficulties associated with school closures, including the loss of structure, social interaction, and academic progress. Some children struggled to understand restrictions, while others deeply missed their teachers and peers (Banerjee et al., 2021). A review of home-learning experiences found that they were mostly negative, with parents highlighting challenges such as the lack of tailored resources and the struggle to maintain engagement (Paterson et al., 2024).

423. Despite these challenges, some parents noted unexpected benefits of online learning for learners with special needs. The flexibility of online learning allowed for personalised learning experiences, reduced social pressures, and greater family involvement in education. Some children exhibited calmer behaviour and reduced anxiety levels at home, and some developed new skills through increased family interaction (Mullen et al., 2024). Sibling relationships also improved in some cases, as children took on teaching roles and supported each other's learning (Ludgate et al., 2022).

424. Parents of learners in special schools were generally more positive about online learning. For families who reported no significant negative impact from lockdown, the most frequently cited reasons were strong family support and a sense of safety (Castro-Kemp & Mahmud, 2023).

425. Additionally, digital participation provided new opportunities for children with profound and multiple learning disabilities. Some individuals developed new digital skills, which enhanced their ability to engage in activities and maintain relationships, ultimately improving their quality of life (Caton et al., 2023).

426. In summary, the impact of online learning was mixed, with some families and learners with special needs benefitting from being at home and thriving, while others struggled to access learning opportunities at home (either online or paper-based materials). Most families, though, reported a lack of support and access to resources. Ultimately, the lack of tailored resources and support left many learners with special needs struggling to engage with remote learning, placing additional strain on families.

4.5 Impact overall of Covid-19, and responses to it, for learners with special needs

427. As a result of Covid-19, learners with special needs had reduced access to learning and the wider support systems that schools and local authorities provide, beyond what was experienced by students without special needs. This section discusses the wider impact of this lack of support, including the impact on attainment, access to support and identification of needs, school transitions, learners' wellbeing, their physical health, and their special needs and overall abilities.

Attainment

428. Because the four jurisdictions differ in how they define special needs and assess attainment, the outcomes for learners with special needs will be discussed separately for each one.

England

429. The attainment gap for children aged 4 to 5 years old receiving SEN support in England had widened during the pandemic, reaching 12.4 months in 2022; the largest gap recorded since the series began in 2013. The attainment for children in reception year with an EHCP remained largely unchanged in 2022 compared to 2014 (Education Policy Institute, 2023).

430. Learners with SEN support in England have also improved in their performance in that the percentage of learners with special needs attaining GCSE Grades 9 to 5 (highest =9, lowest =5) in English and Maths increased slightly across all types of schools. In addition the learning gap decreased. At the end of Key Stage 4 (aged 14 to 16 years), the gap has reduced by nearly six months since 2011, reaching 23.0 months in 2022 (Education Policy Institute, 2023). Similarly, the gap at the end of Key Stage 2 continued its long-term decline, narrowing from 2019 to 2022 to 18.1 months, down from 21.1 months in 2011. It is unlikely that this increase is caused by

learners with SEN support having access to face-to-face teaching during the pandemic as very few attended school in person during this time.

431. Whilst the performance of learners with SEN support in Key Stages 2 and 4 in England did not worsen, there was a different story for those students with an EHCP. At primary school level, the attainment gap for pupils with an EHCP stood at 28.3 months in 2022 — slightly above the pre-pandemic level of 28.1 months in 2019, yet still narrower than the 29.8-month gap recorded in 2011 when the data series began.

432. By the end of secondary school, the EHCP attainment gap was significantly larger, reaching nearly three and a half years (40.7 months) in 2022. However, unlike the trend seen in primary education, this represents a small improvement compared to the 41.1-month gap in 2019, continuing the long-term decline observed since 2011—though progress has slowed compared to the more rapid gains made between 2011 and 2015.

433. Thus, the pandemic widened educational inequalities for learners with special needs overall, especially among those with more severe and complex needs (Tuckett et al., 2021) and very young learners with special needs. This may be related to the fact that these learners were most affected by the losses experienced in communication and social skills, independence and self-care, and physical development.

Northern Ireland

434. The proportion of school leavers with a statement of Special Educational Need (Stage 3 of the SEN Code of Practice) who achieved at least five GCSEs at grades A* to C or equivalent was 71.2% in 2022/23, compared with 92.3% for those pupils with no special needs. 78.6% of pupils recorded as having SEN stages 1 to 2 achieved this standard. However, it is not possible to compare data for 2018 to 2019 as this is not available, as a consequence of the changes to SEN categories and associated descriptors that was implemented from January 2019 (Education Authority, Northern Ireland, 2022).

435. Figures for 2020, however, show the percentage of pupils with special needs not gaining any formal qualifications far exceeds that of pupils without special needs, where only 0.3% of this cohort left without qualification, compared to 2.2% for those with special needs. In 2022, this gap had narrowed slightly, to 0.6% leaving without qualification compared to 2.0% for pupils with special needs, although it should be noted that due to alternative methods of awarding grades in 2019/20 and 2020/21,

and the various assessment adaptations in place for 2021/22, caution should be taken when drawing any conclusions relating to changes in student performance.

Scotland

436. Between 2018/19 and 2021/22, the literacy gap between those with and without special needs reduced slightly across the primary age range, but mainly due to reduced achievement levels among those recorded as having no special needs. The numeracy gap remains the same as in 2018/19. It is possible that the small reduction in the literacy gap may also be partially explained by the use of additional resources such as 'catch-up' teaching, additional supported study sessions, and additional reading support in 2021/22, but there is a need for evidence around how additional funding was used and targeted, the sustainability of these resources and outcomes, and their impact on children and young people with additional support needs. Crucially, the gap still remains wide; in 2021/22, the attainment gap between those with and without a statutory statement at primary school was 33 percentage points for literacy, and 29 for numeracy. Similarly, the gap between school leavers with at least one SCQF (the national formal qualification framework) level 5 increased slightly in 2019/20 then decreased in subsequent years, leading to a small decrease in the gap by 2021/22. Overall, learners with special needs are less likely than those without to achieve formal qualifications, and the gap widens as qualification level increases (McCluskey et al., 2023).

437. In Scotland, in 2022/23, the percentage of primary learners with special needs achieving the expected Curriculum for Excellence (CfE) levels (the Scottish curriculum framework for 3-18 year olds) increased across all stages compared to 2021/22, and these improvements were either equal to or slightly greater for learners with a recorded special need than for their peers without special needs. There is no clear evidence here that performance in 2022/23 was better than in 2018/19 for learners in special schools/units. Indeed, for most achieved levels (Early, First, Third, and Fourth), the percentages were lower in 2022/23 across all or most subject areas (Scottish Government, 2023).

Wales

438. In Wales, there is a statutory requirement to assess learners in Year 9 at Key Stage 3 (age 13 to 14), when learners are expected to reach Level 5 (that is, the expected level of attainment). Data for learners with special needs in 2019 showed that 59.3% achieved the expected level across English/Welsh, maths and science compared to

95.8% of learners with no special needs. No tests took place in 2020 or 2021, but in 2022, the figures for both groups had fallen to 46.3% and 85.4% respectively, suggesting that the decline in standards was greater for those learners with special needs (Welsh Government, 2024). Disaggregated data for other year groups is not publicly available.

439. In summary, lockdowns, full and partial school closures negatively impacted many groups of learners with special needs and their academic progression. There are concerns that the lost opportunities were more substantial for children with the most complex or severe special needs (Ashworth et al., 2023). Across the UK, estimates for impacts on learners with special needs vary but learning loss is typically assessed at around 2 to 4 months (Education Endowment Foundation, 2022; Webster et al., 2022). There is also concern that there seemed to be a deeper impact on primary maths than primary reading (Education Endowment Foundation, 2022). Although there appears to be very limited research into whether some identified groups with special needs lost out more than others, headteachers reported a greater learning loss for learners in special settings than those in mainstream settings (Skipp et al., 2021). This chimes with the finding that those with an EHCP were affected more as most students in special schools have an EHCP. In addition, learners with special needs do not seem to have benefitted as much from the overall grade increases in 2021 (Tuckett et al., 2021). However, it is important to note that since 2022, very few studies have followed up performance in students with special needs and the data looks different for different jurisdictions. More detail on recovery strategies is outlined in Chapter 6.

Impact on access to support and delayed identification of special needs

440. School closures significantly disrupted learners' access to essential services, support systems, and daily routines. During the early stages of the pandemic, many crucial services outlined in support plans and statutory statements—including mental health support, speech and language therapy, and one-to-one educational support—were widely discontinued (Pagnamenta et al., 2023). This discontinuity of statutory support was permitted by the Coronavirus Act 2020.

441. Service availability varied and parents described the situation as a lottery of often "*threadbare and diminished*" services (Ashworth et al., 2023, p.1916), with medical services experiencing the least disruption (66.7% of children missed at least one scheduled hospital appointment), whilst there was abrupt disruption of access to usual support from health services (76%), education (90.9%), and social care

(71.7%) (Paulauskaite et al., 2021). Many families struggled with restricted school access, resulting in the loss of school-based therapies and interventions: families reported interruptions to physiotherapy (42.1% no contact); occupational therapy (74.3% no contact) and speech and language therapy (71.4% no contact) (Arichi et al., 2022).

442. Some education and social care services shifted to remote delivery, focusing on resilience and individual risk management. Parents felt that these telehealth services (such as by phone, Zoom, and FaceTime appointments) were not an adequate substitute for in-person consultations when addressing the needs of children and young people with special needs (Wolstencroft et al., 2021), especially for assessments and interventions requiring physical interaction or hands-on support (Pennington et al., 2024). Professionals also found it difficult to engage meaningfully with families, making it harder to maintain quality interactions with young people and ensure their voices were heard (Merrick et al., 2024). In addition, services that were originally integrated (for example in Scotland), shifted toward mono-professional silos (McCartney & Forbes, 2023). This breakdown in co-planning and co-delivery reduced the overall quality and accessibility of support for children with special needs.

443. Service provision was further complicated by the frequent updates to Covid-19 legislation, making it difficult for providers to interpret and implement policies consistently. Many parents felt uninformed about available services despite efforts to communicate updates, often receiving conflicting advice (Pennington et al., 2024). For example, 81% of families had no contact with their local authority during the lockdown (Gillespie-Smith et al., 2023), despite local authorities being responsible for the support for learners with special needs.

444. Other supports such as play facilities, clubs, community centres and activities that provide an opportunity for children with special needs to socialise and make friends, and act as a "*bit of a lifeline for many parents*" (Ashworth et al., 2023, p.1921), as well as formal respite facilities and support from families, friends and carers, all ceased in March 2020 (Mullen et al., 2024). These closures had a significant impact on the families and children with special needs.

445. Both in the autumn term 2020 and the spring term 2021, many of the services that had ceased at the start of the first national lockdown in March 2020, had still not resumed (Ofsted, 2021). Indeed, headteachers reported that around a third of learners attending school were not receiving their full health and therapeutic support (34%) or social care services (37%) (Skipp et al., 2021). However, nearly two thirds

of parents reported that the provision outlined in their child's plan had not been fully restored. Among those not attending school, the gaps were even more pronounced — 87% of learners were not receiving full health or therapy support, and 78% were missing out on their full care package (Skipp et al., 2021).

446. The absence of access to support services had a significant impact regarding delays in diagnosis (Pennington et al., 2024) and delivery of support. Delays for a diagnosis of special needs was already a problem before Covid-19 and this will have had an impact on who was allowed to go to school and received support during the pandemic. However, waiting lists to access assessments and support have continued to grow. For example, a child development clinic in Northern Ireland in 2019 typically had 35 referrals on a waiting list; this has now risen to around 140 children (Royal College of Speech and Language Therapists Northern Ireland, 2022). Parents and school leaders reported delays in assessments for Education Health and Care plans in England (The Disabled Children's Partnership, 2020; Crossfield et al., 2023), which increased waiting lists. In addition to delays for special needs assessments, delays and increased waiting lists have been reported for mental health assessments as well (NHS providers, 2022).

447. When support returned, the use of face masks in schools and therapy sessions had an impact on supporting learners with communication and language difficulties (Marchant et al., 2022) as well as deaf learners (World Health Organisation, 2020), which recommended that clear face masks only should be used for this group, although this still presented some challenges for deaf learners (National Deaf Children's Society, 2021; Conn et al., 2024). Additionally, parents often did not receive updates from medical or social care providers about their appointments, unless they initiated contact themselves (Wolstencroft et al., 2021).

Impact on school transitions

448. Although school transitions can often present an additional challenge for learners with special needs (Sideropoulous et al., 2024), there is a lack of research on the impact of the pandemic on school transitions. However, two small scale studies with preschool teachers (Bakopoulou et al., 2024; Whyte, 2021) have reported that school closures impacted on the transition processes from Early Years to Key Stage 1 and that school transition was a significant challenge, due to the lack of specific special needs advice and constant changes to guidance that created uncertainties and made planning for transition very difficult. Also, the pandemic prevented learners with special needs at all levels to have a voice and they were denied involvement in key

decisions, such as school placement (Couper-Kenney & Riddell, 2021). This is in contrast to special needs policies. For example, the SEND Code of practice in England states that the voice of the learner should be included in the needs assessment process and in determining suitable placements.

449. Some of those who had transitioned to a new school or college in September 2020 were feeling isolated and lonely during the third national lockdown in England (Ofsted, 2021).

Impact on resilience and wellbeing

450. School closures and remote learning, as well as a lack of wider social support and contact, had negative impacts on learners with special needs, with 80% of a selection of high-quality studies reporting a negative impact on emotional difficulties and worsening mental health (Castle et al., 2024; Mullen et al., 2024). Most studies reported higher anxiety, as well as emotional and behavioural difficulties, at the start of the pandemic (spring to summer 2020) (Masi et al., 2021; Morgül et al., 2022; O'Hagan & Kingdom, 2020; Sideropoulos et al., 2022; Waite et al., 2021). This was linked to fears around Covid-19 itself, the lack of opportunities for socialisation with peers, and experience of isolation (Morris et al., 2023), as well as the loss of routines and stress of remote learning (Castle et al., 2024), with learners feeling overwhelmed and exhausted (Pearcey et al., 2024).

451. Although some studies suggest that certain learners, particularly autistic students, experienced improved wellbeing and reduced stress when not attending school (Castro-Kemp & Mahmud, 2023), other research indicates that autistic individuals were more affected and exhibited higher anxiety levels compared to other groups with special needs (Toseeb & Asbury, 2023). However, a systematic review found that experiences were influenced more by individual differences than by the category of special needs (Castle et al., 2024). Individuals with special needs who had pre-existing anxiety and mental health difficulties were impacted more (Morgül et al., 2022; Sideropoulos et al., 2022). The impact also depended on the age of the child and whether they had siblings (Raw et al., 2021) as well as the coping mechanisms used by the parent (Steindorsdottir et al., 2024) and the young person with special needs. Families with greater resilience (Dimitrova et al., 2025) and those with higher income levels (SES) (Castro-Kemp & Mahmud, 2021) experienced a reduced impact on their children with special needs. In addition, those with a statutory statement experienced higher levels of difficulties compared with those without (Panagi et al., 2024).

452. Very few studies have examined the impact on wellbeing and anxiety longitudinally (Castle et al., 2024). Whilst wellbeing and anxiety improved during the period from 2021 to 2022 (Gillespie-Smith et al., 2024), learners with special needs were still found to be most at risk of increasing or persistent mental health problems (Guzman-Holst et al., 2023a) and high levels of peer problems (Guzman-Holst et al., 2023b) in 2021. These studies highlight the importance of addressing the mental health needs of the entire school community, including learners with special needs, following unplanned events.

Impact on physical health

453. A number of studies have shown that, during the spring and summer of 2020, a high proportion of parents of learners with special needs (61% to 68%) reported a reduction in their child's physical activity levels during lockdown (Masi et al., 2021; Paterson et al., 2024; Theis et al., 2021), with a significant increase in the number of hours spent sitting during lockdown, from 2 to 4 hours per day before restrictions to 4 to 6 hours per day after (Theis et al., 2021) and increased screentime (Morgul et al., 2022, Masi et al., 2021). However, others have reported that children with physical disabilities benefited as they took part in online fitness classes that started in lockdown or spent more time playing in the garden or cycling (Theis et al., 2021).

454. Parents also reported poorer diet, with both under-eating and over-eating being reported. Just under a third (32.4%), and one-fifth (18.8%) of caregivers reported an increase in medication dosage for their child (Masi et al., 2021). Parents reported that their child with special needs experienced reduced sleep duration (Morgül et al., 2022) and sleep quality (Masi et al., 2021). School leaders estimated the health and physical development of learners with special needs to be 4 months behind, compared to before the pandemic (Webster et al., 2022). Families also reported missing hospital appointments (66.7%) and routine therapy, leading to a worsening of symptoms and function in their children, such as pain (54.2%), tone abnormalities (50.5%), and sleep difficulties (41.5%) (Arichi et al., 2022). Supporting children with special needs' physical health was challenging for most parents due to a lack of services and support (Spain et al., 2021). As social and healthcare was significantly disrupted during the Covid-19 period, physical care was mainly carried out by family members during lockdown. Siblings without special needs were also impacted by the need for their parents to carry out more physical and emotional care (Couper-Kenney & Riddell, 2021).

455. As play areas were closed during the first lockdown, reduced opportunities for play and recreation were problematic for children with special needs, as this resulted in lost opportunities to fulfil sensory (vestibular) needs for movement (Ashworth et al., 2023). However, when schools reopened after lockdown, parents reported an increase in physical activities again (Morris et al., 2021).

Wider impacts

456. While some learners with special needs worried less about seeing their friends compared to learners without special needs (Sideropoulous et al., 2022), there must still be concern that lockdown led to increased isolation for young people with special needs. Support for emotional-behavioural difficulties had been affected by the pandemic, being stopped or postponed (61%), moved to online support (21%) or reduced (13%), with similar patterns reported for access to social services and educational support (Children and Young People's Strategic Partnership, 2020). In Wales, pupils with additional learning needs (ALN) were more likely to suffer with mental health difficulties as a result of school closures with the impact on mental health appearing to affect more secondary than primary aged pupils (Waters-Davies et al., 2022).

457. School leaders reported that Covid-19 and school closures had a significant impact on the general abilities of learners with special needs, with learners being reported to be over four months behind in independence, self-care and life skills; social and communicative skills; and behaviour and self-regulation (Webster et al., 2022). Older young people had also missed out on work experience and life-skills courses that would usually be important parts of their curriculum and help to develop independence abilities (Ofsted, 2021).

458. Behavioural and social skills, including communication skills, as well as a child's self-regulation and co-operation skills, were the most frequently cited area of deterioration (Ashworth et al., 2023; Morris et al., 2021; O'Connor et al., 2020; Pagnamenta et al., 2023), with some losing social confidence (Vincent et al., 2023) and requiring greater intervention than usual after the pandemic. Indeed, some children continued to display a lack of trust and social skills even as routines returned to normal (Whyte, 2021). However, seeing friends and family during the lockdown period was positively associated with an improvement in overall social-communicative behaviours during the lockdown (Morris et al., 2021).

459. In summary, the closure of schools and support services had a major impact on learners with special needs, not only in their attainment but also on their social, emotional and physical wellbeing. Whilst some services were able to resume online, the remote support was not available to all and there was a lack of communication and clarity from support services and local authorities. The lack of identification of needs, as well as the increased needs of learners with special needs, have resulted in an increased need for support, and long waiting lists. However, it is important to point out that rarely have the voices of learners with special needs themselves been captured directly.

Returning to school

460. In the autumn of 2020, most schools re-opened again to all learners. However, some learners with special needs were still unable to attend schools or had sporadic attendance. Barriers to returning to school included parents being concerned about Covid-19 transmission, including worries about school transport. In a small number of special schools and alternative provision settings, some learners were unable to return to school because their transport – taxi or minibus – was not in place. Levels of attendance were consistently lower for learners with more significant health and medical needs. This was particularly the case for those with respiratory conditions or profound multiple learning difficulties, or in places where Covid-19 infection rates were higher. Some schools reported that health practitioners were not coming into school to set up specialist medical equipment or to train staff to do so. This was preventing some learners from being able to attend (Ofsted, 2021). Return to school was also hindered by the high level of staff absence within schools, which led to inconsistency in staffing, or replacement staff who were unfamiliar with learners' individual needs (Education recovery in schools, summer 2022). This often had a negative impact on learners with special needs.

461. These issues related to attendance outlined above, and which were largely new concerns, feed into the continuing higher levels of absence for learners with special needs. There is also evidence that some parents have been encouraged by schools to home educate (Done & Knowler, 2021), although it is also the case that some learners with special needs have not returned to schools because their parents have come to value the benefits of online learning, such as more flexible timetables, fewer sensory processing difficulties and social anxiety, and have made the choice to deregister their child permanently, preferring home-schooling (Wenham et al., 2021). Furthermore, the illegal removal of learners from the school roll, informally known as

'offrolling' continues to be a separate but related issue, particularly in England (Daniels et al., 2023). All of these would benefit from greater scrutiny in the post-pandemic educational context.

462. In terms of catch-up programmes, 51% of school leaders in England reported that they prioritised learners with special needs for tutoring from the National Tutoring Project (Lynch et al., 2024). In Northern Ireland, some funding was made available to support pupils to catch up, approximately £83 per pupil, sufficient to buy only a small amount of one-to-one tuition, although there has been no independent evaluation of the impact of any catch-up programmes to date (Northern Ireland Assembly, 2021). The Welsh Government also provided funding for pupils to catch up, although they noted there was variability in how this was spent, nor were there mechanisms in place to track impact (Welsh Government, 2022). More detail on these programmes is offered in Chapter 5.

4.6 Summary

463. In summary, support for learners with special needs was insufficient across all areas of the UK. The specialised educational provision and support required by learners with special needs was often lacking. England, Scotland and Northern Ireland reduced the legal duties of local authorities and other bodies to provide for learners with special needs and this resulted in significant change, much of which has been detrimental to learning progress and attainment. While Wales did not alter these legal duties, it is as yet unknown whether, or to what extent, this affected levels of provision in practice.

464. The UK jurisdictions overall have failed to adequately support children with special needs during the lockdown period, with provision and support variable and too dependent on priorities set at local authority level.

Chapter 5. Post-pandemic and longer-term impacts

Summary: Post-pandemic and longer-term impacts

Educational attainment has declined since the pandemic, globally and within the UK. Poverty and inequality underpin and exacerbate many of the challenges faced. Impacts of the pandemic have not fallen equally on all and evidence suggests that there have been devastating impacts on many of those who were already marginalised in education. There is also evidence that pre-existing inequalities exacerbated by the pandemic have continued to exert negative impact, for example, on boys, on children living in poorer socio-economic circumstances, and those with special needs. Impacts on children who were in transition years and exam years were significant. Governments across the UK are investing in classroom technology including innovations such as AI tools. Despite these investments, knowledge of actual UK-wide classroom usage is often inconsistent, and detailed data is limited outside of England. More research is needed to understand these impacts from the perspectives of children as learners themselves. Caution is needed in predicting longer term trajectories but it is vital that the detrimental effects children currently face, are recognised in full.

5.1. Overview of educational attainment in the years since the pandemic

465. The previous chapters in this report explained the educational impacts of the pandemic on children and young people during the period from March 2020 to June 2022. This included an examination of the experiences and outcomes for those with special needs. The report now turns to deal with what is known about trends in learning and attainment in the years from June 2022 onwards, including overall impacts, differential impacts, the attainment gap, and attendance. Long-term impact includes impacts that are likely to continue to impact learners and schools beyond 2022. Many of these impacts have not yet been measured and it is uncertain how far into the future they will continue to reflect the impact of Covid-19.

466. Internationally, there is consensus that the emergency school closures triggered by the pandemic have had a severely detrimental effect on learning and attainment. In order to consider what the enduring impact of the pandemic has been, PISA country level data indicates that the longer schools were closed, the greater the levels of learning loss (Jakubowski, Gajderowicz and Patrinos, 2024). Although some children saw improvements in their learning, negative impacts were felt by the majority of learners. There is evidence that pre-existing inequalities were exacerbated by the

pandemic and have continued to have impact, for example, for boys, children living in poorer socio-economic circumstances, and those with special needs (Schult *et al.*, 2022; Jack and Oster, 2023; Jakubowski, Gajderowicz and Patrinos, 2024). These global trends are also evident within our own learner population in the UK and discussed in detail below. In reviewing this evidence, care must be taken to avoid ascribing a simple causal relationship between Covid-19 and changes in learning and attainment, given the other serious pressures on schools prior to, and since the pandemic, as detailed earlier in this report.

Overall enduring trends in attainment since the pandemic

467. Trend data for the UK is detailed below, looking at international comparators such as PISA and also cross-nationally. First, within-country data is reported below for pre- and post-pandemic, where this is available. Although some children saw improvements in their learning, negative impacts were felt by the majority of learners (Waters-Davies *et al.*, 2022; Milanovic *et al.*, 2023).

468. Since 2022, children's educational attainment overall in England has shown some signs of recovery from the disruptions caused by the Covid-19 pandemic. At Key Stage 2 (aged 7 to 11 years) in 2023/2024, for example, 74% of pupils met the expected standard in reading, up from 73% in 2023; 72% met the expected standard in writing, an increase from 71% in 2023; 73% achieved the expected standard in maths, the same as in 2023; and 81% met the expected standard in science, up from 80% in 2023/24. Girls continued to score more highly than boys in all subjects at Key Stage 2, except in maths, where boys outperformed girls by 1 percentage point in 2023/2024 (Department for Education, 2025a).

469. While urging caution about drawing comparisons with pandemic grades awarded, Northern Ireland's attainment statistics indicate overall decreases in attainment post-pandemic when examining in the proportion of learners achieving 5 GCSEs at Grade A* to C or equivalent (Northern Ireland Statistics and Research Agency, 2024). Equivalent figures in Scotland also showed a small decline such that A to C attainment at National qualification level was 77.3% in 2024, but 78.9% in 2023 (Scottish Qualifications Authority SQA, 2024) and in Wales, equivalent A to C grades were also slightly lower than during the pandemic (Welsh Government, 2024c).

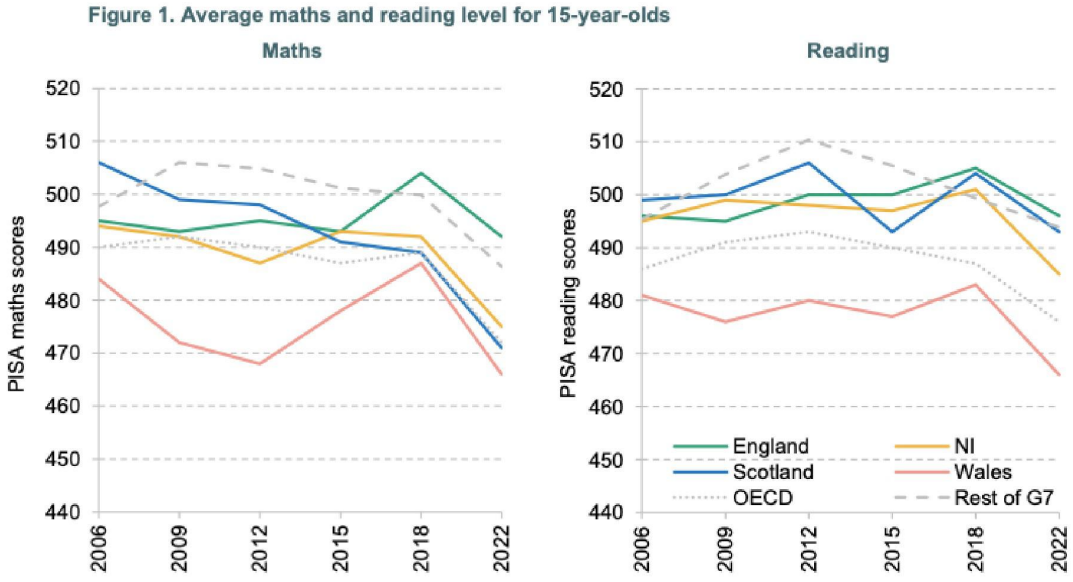
470. Turning to international comparisons, Table 18 below shows PISA results for maths and reading prior to and since the pandemic ended. This table also illustrates the improvements in attainment made between 2006 and 2020 across the UK, albeit

from different starting positions in the different jurisdictions. More detail on pre-pandemic trends was offered in Chapter 1, but in terms of post-pandemic and longer-term impacts, it is notable that the declines seen in these UK scores are in line with other high-income countries.

471. England is the exception here, having maintained higher levels of performance in PISA than the G7 average and also higher than the other UK jurisdictions. Maths scores for Northern Ireland, Scotland and Wales in PISA 2022 represented their lowest scores ever. Wales and Northern Ireland also saw their worst reading scores ever in PISA 2022. 2020 was the last year in which OECD EU23 included UK data, so it is only possible to contextualise our attainment trends alongside our nearest neighbours up to that point in time (Ingram *et al.*, 2023a, 2023c, 2023b; Scottish Government, 2023a; Farquharson *et al.*, 2024).

472. While this data represents one of the few international comparisons available for all four UK jurisdictions, and therefore is uniquely valuable, caution is needed in relying on the results, given that this most recent PISA exercise was administered during or immediately after the pandemic, and that PISA methodology is one way, not the only way, of measuring attainment (see Chapter 2 for further discussion on the limitations of PISA). The PISA exercise takes place every three years and is next scheduled for late autumn 2025.

Table 18: PISA results - average maths and reading level for 15-year-olds, prior to and after the pandemic



Note: PISA results are scaled to fit approximate normal distributions that have a mean of around 500 and a standard deviation of about 100. This means that only around 2% of students score above 700 or below 300 points. England's maths and reading scores fell by 12 and 9 points respectively from 2018, representing falls of around 10% of a standard deviation. Scores are comparable across countries and across time. Tests are 'low-stakes' – they do not determine any future outcomes.

Source: Based on data from Ingram et al. (2023) and OECD (2007, 2010, 2013, 2016, 2019, 2023).

Source: (Farquharson *et al.*, 2024, p. 6)

473. Learning losses are likely to have long-term effects. Studies from the Education Endowment Foundation (EEF) found significant learning loss, particularly in literacy and maths in primary schools. For example, learners in Year 1 and 2 were 2 to 3 months behind compared to pre-pandemic cohorts. The National Tutoring Programme (NTP) was launched in November 2020 in England to help students recover lost learning. Whilst by the summer of 2021 there was some learning recovery, this learning loss will have a significant long-term impact on widening inequalities (Education Endowment Foundation, 2022). However, the catch-up in England has very much focused on academic catch-up, with less focus on socio-emotional skills and wellbeing. Using data from 19,000 pupils in the Millennium Cohort Study, a study by Elliot Major et al. (2024) created a predictive model that evaluates the effects of Covid-19-related school closures in England on educational and lifetime outcomes across different demographics. The findings reveal a

significant decline in basic GCSE achievement and an increased socioeconomic gap, impacting students taking GCSEs through to the 2030s. Boys aged 5 during the closures are 4.4 percentage points less likely to attain 5 good GCSEs, while females face a 4.8 percentage point reduction. By 2030, fewer than four in ten pupils are projected to achieve grade 5 or higher in English and mathematics GCSEs, compared to 45.3% in 2022/23. Predictive modelling can only ever provide an estimate of potential future outcomes, so these results should be used cautiously, but overall, this is a strong study based on good data, and its findings are broadly in line with the other evidence about the impacts of the pandemic on learning. However, the data on learning loss is patchy and there is not much follow-up data available yet.

Differential impacts and attainment gaps

474. The pandemic exacerbated pre-existing inequalities. Negative impacts often intersect with each other, compounding the impacts. Disadvantage has many different facets, and it is important to note the impacts on particular groups. Care experienced learners, for example, continue to be much more likely to have identified special needs. For example, in Northern Ireland as at November 2023, 3,024 children had been in care for over a year, marking a 46% increase from 2013. Among these, 27% had a statement of Special Educational Needs, higher than the 6% in the general school population (Northern Ireland Statistics and Research Agency, 2024). Below, we outline some of the post-pandemic inequalities that point to differential impacts of the pandemic on education.

The poverty-related attainment gap

475. Data from England indicates that children from more affluent families, and those attending fee paying schools, suffered the least severe losses (Holt-White and Cullinane, 2023) but more generally, the aftermath of the pandemic has seen a deepening of educational inequality within the UK, with the prospect of significant wider economic impacts in future.

476. Rose *et al.* (2024) examined the impact of school closures on attainment and social skills among younger children in England. This longitudinal study tracked the progress of 4,765 learners in 59 schools in England who were in Reception and Year 1 at the start of the pandemic. It included analysis of attainment data, headteacher surveys, and teacher assessments of learners' social skills. It compared their attainment with a representative sample assessed before Covid-19, as well as

looking at change over time. Their findings offer a useful summation of known impacts across the UK:

476.1. "*Overall, the Covid-19 gap [the difference between the mean scores of pupils in the 2023/2024 academic year and those of pre-pandemic samples] appears to have closed, on average, in both reading and mathematics for the Year 4 (age 8-9) and Year 5 (age 9-10) pupils in our study.*

476.2. Tracking the same group of pupils each year in the study shows the Covid-gap has reduced across the length of the study from spring 2021 to spring 2024 for both year groups and subjects.

476.3. However, the disadvantage gap [for the purposes of their study, the authors defined this as the difference between those eligible and ineligible for free school meals (FSM)] remains wide. For both reading and maths, disadvantaged pupils in Year 4 were on average seven months behind their non-disadvantaged peers. Disadvantaged pupils in Year 5 were, on average, 6 and 7 months behind their peers for reading and mathematics, respectively.

476.4. Whilst for Year 4 pupils, the disadvantage gaps have reduced slightly since spring 2021, the gaps have remained stubborn for the Year 5 pupils, and indeed remain wider than those reported elsewhere before the pandemic.

476.5. There also remained a notable proportion of very low attaining pupils in Year 5 reading this year, as well as a proportion of pupils who were highlighted as unable to access the curriculum.

476.6. The most common challenges reported by schools now relate to the longer-term fall out of the Covid pandemic including pupil wellbeing/behaviour, staff workload relating to pupil wellbeing/behaviour, difficulties obtaining external support for pupils, and wider concerns about pupil absence.

476.7. Schools continue to prioritise recovery support for low attaining pupils, and for disadvantaged pupils (although to a slightly lesser extent than low attainers and than in previous years of our study). They are also prioritising wellbeing support.

476.8. *Schools' strategies to support pupils' learning with small group work, staff redeployment, and one-to-one catch up appear to be paying off. However, given the stubborn disadvantage gap, and that there remain some very low*

attainers, more targeted support is needed for schools to continue to support these groups of pupils" (Rose *et al.*, 2024, p. 22).

477. By most measures, the attainment gap between disadvantaged pupils and their peers has widened across the UK since pre-pandemic, pointing to an increase in overall inequality since the pandemic. In 2022, children from the least advantaged fifth of households in England scored 95 points lower on PISA literacy tests and 90 points lower in numeracy compared to their more advantaged counterparts. In the last PISA exercise before the pandemic in 2018 (OECD, 2019b) the gap between students from the most and least advantaged socio-economic backgrounds in England was approximately 89 points in reading and 78 points in mathematics.

478. Looking beyond PISA scores to attainment data for each jurisdiction, it is evident that the disadvantage attainment gap remains wider than before the pandemic, although which learners this applies to varies between jurisdictions, possibly reflecting differences in definitions of poverty/disadvantage, different ways of measuring attainment, differences in education systems and structures, and differing policy contexts. It will only be possible to accurately assess the extent of the pandemic's impact on the attainment gap over a longer timeframe, but at this point it is essential to note the link made by Tuckett *et al.* (2022) between the

> "*rising persistence of poverty and worsening educational outcomes for persistently disadvantaged pupils in 2021 compared to their peers – both of which are likely contributing to the widening headline disadvantage gap*" (Tuckett *et al.*, 2022, p. 9).

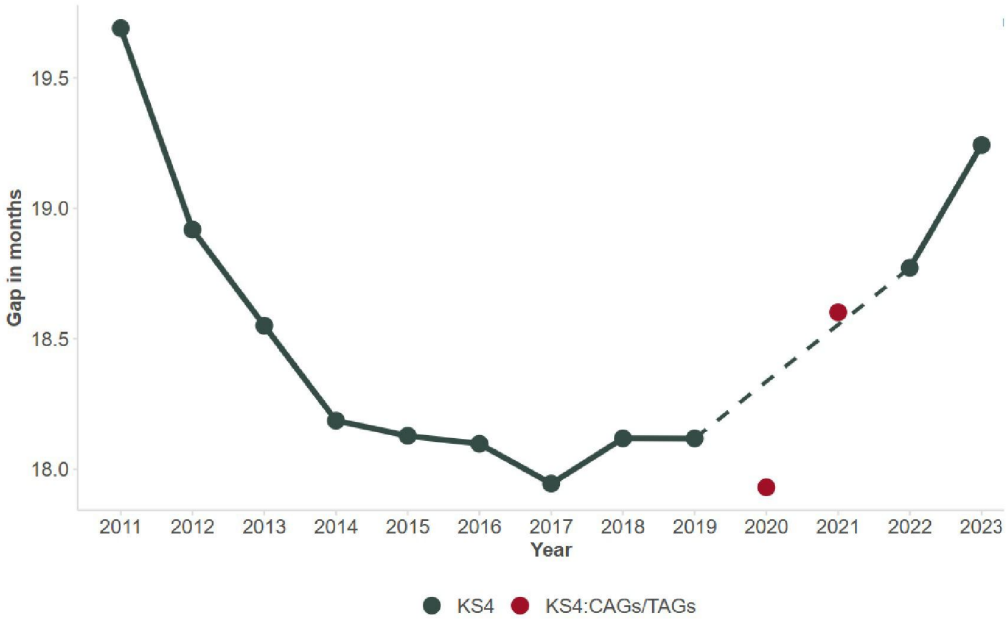
479. As each jurisdiction measures and reports the poverty attainment gap differently, data is not directly comparable, so we report separately on each jurisdiction below. It is worth noting that the statistics used to report the disadvantage gap do not usually include those attending private/independent schools, so the 'true' gap is likely to be wider, particularly in England, where a higher proportion of learners attend private schools (see Chapter 2 for further information on the differences in education systems between the jurisdictions).

The poverty attainment gap in England

480. In England, the Education Policy Institute's 2024 analysed the poverty-related 'disadvantage gap' – the difference, reported in months of learning, in attainment between learners who were eligible and those not eligible for free school meals,

using free school meals as a proxy for economic disadvantage. They found that the gap narrowed for those in Reception year in 2023, although it was still far wider than pre-pandemic, and at its widest since 2011. For those at the end of primary school, the gap in 2023 was the same as in 2022, and far wider than pre-pandemic (although the gap was already widening before the pandemic). For those at the end of secondary school, the gap in 2023 was at its widest since 2011 (Education Policy Institute, 2024). Data from the Department for Education for 2024 shows that disadvantage gaps were still wide in 2024 – although the disadvantage gaps at Key Stages 2 and 4 had reduced slightly since 2023, they were both still higher than pre-pandemic, and the KS4 gap was wider than it was in 2012 (Department for Education, 2025a, 2025b).

Figure 15: The disadvantage gap in GCSE English and maths, England, 2011 - 2023



Source: Education Policy Institute, 2024

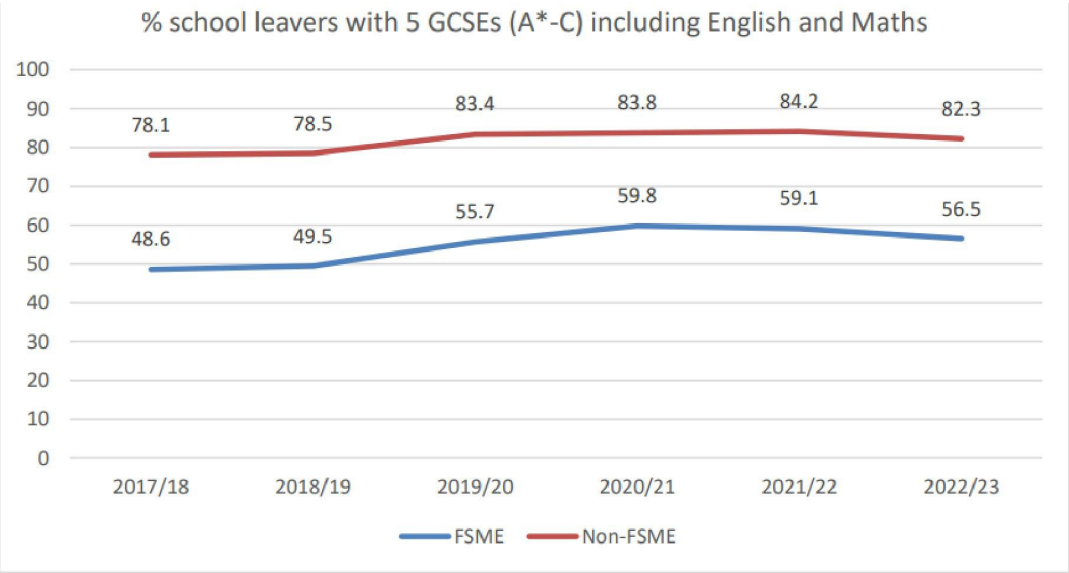
The poverty attainment gap in Northern Ireland

481. In Northern Ireland, 2022/23 data revealed a 25.8% attainment gap between non-free school meal entitled (NFSME) and free school meal entitled (FSME) learners or, as Knox (2025) points out

"*82.3% of non-free meal school leavers had at least 5 GCSEs (A* to C) including English and Maths compared to 56.5% free school meal leavers (a gap of 25.8%)*" (Knox, 2025, p. 5).

This is compared with a gap of 29% in 2018/19, suggesting that the poverty-related gap has perhaps narrowed slightly, although it may now be widening again (see figure 16). Knox (2025) suggests that these data may be unreliable, however, having been affected by adjustments made to national qualifications and to more lenient grading during the pandemic.

Figure 16 – Poverty related attainment gap, Northern Ireland, 2018 – 2023



Source: Qualifications and destination of school leavers DENI.

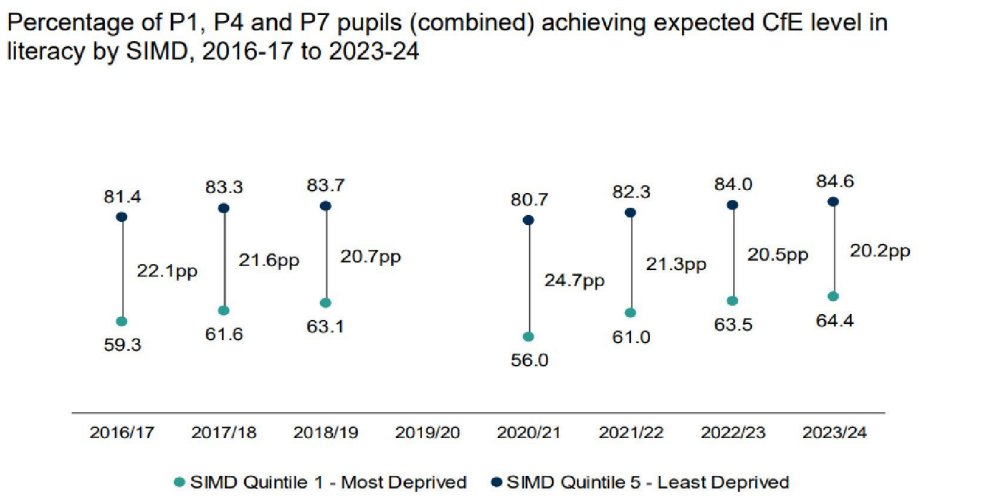
Source: (Northern Ireland Statistics and Research Agency, 2024).

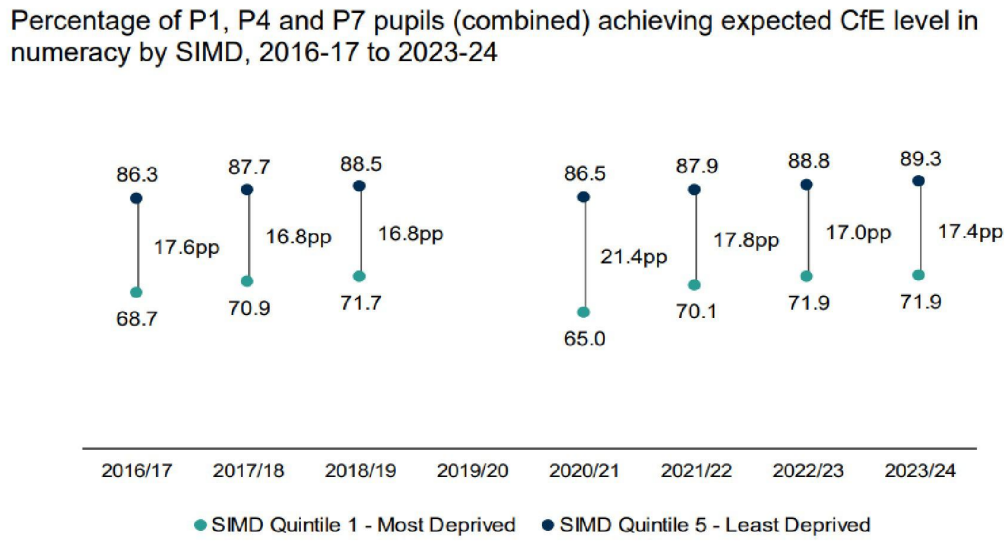
482. When looking at achievement of 3 or more A levels at grades A*-C, the gap between those entitled and not entitled to school meals has widened from 13% in 2018/19 to 15.6% in 2023/24 (Northern Ireland Statistics and Research Agency, 2024).

The poverty attainment gap in Scotland

483. In Scotland, the attainment gap between primary-age children living in the most and least deprived areas reduced in literacy in 2023 and 2024, and is now smaller than it was before the pandemic. In contrast, the numeracy attainment gap, although lower than in 2021, increased in 2024 and remains larger than pre-pandemic.

Figure 17: Literacy and numeracy attainment gaps at primary age, Scotland



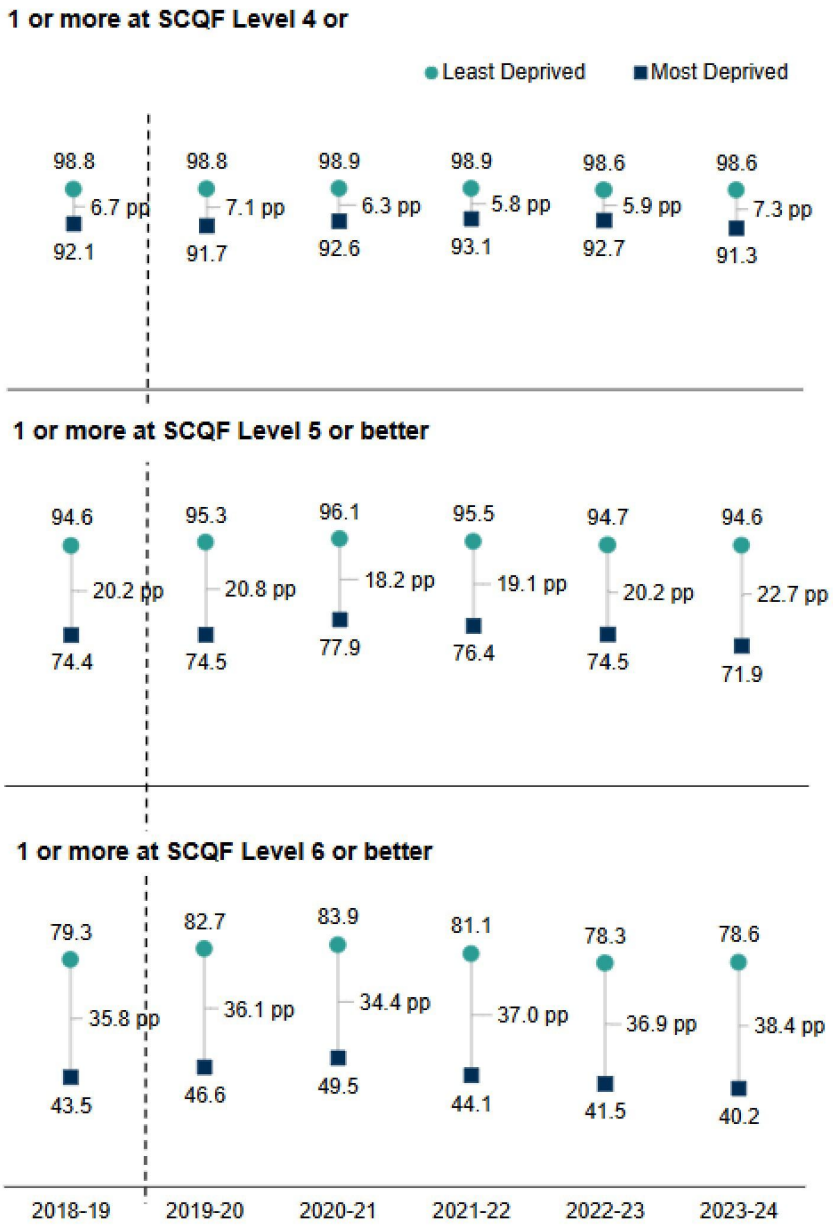


Source: (Scottish Government, 2025). (SIMD = Scottish Index of Multiple Deprivation).

484. At S3 (learners aged around 14), the attainment gap is smaller than it was before the pandemic in both literacy and numeracy(Scottish Government, 2024a). The poverty attainment gap at National 4s, 5s, and Highers (roughly equivalent to GCSEs and A-levels), widened in 2023 and 2024, and the gap is wider now than it was pre-pandemic (see figure 18) (Scottish Government, 2025).

Figure 18: The attainment gap at SCQF Levels 4 to 6, Scotland, 2011 - 2024

Percentage of school leavers by attainment at SCQF Level 4 to 6 or better under the National Qualifications measure, by SIMD quintile, 2018-19 to 2023-24



pp = percentage point difference between most and least deprived quintile.

Source: Scottish Government (2025)

The poverty attainment gap in Wales

485. GCSE A*-C data in Wales shows that the gap between those eligible and not eligible for free school meals initially reduced in 2020, then increased back to 2019 levels in 2021, and in 2024 the gap was slightly wider than in 2019 (see figure 19).

Figure 19: GCSE A*-C (%) results by eligibility for free school meals (FSM), Wales, 2019-2024

Year	FSM eligible	Not FSM eligible	Gap
2019	40.4	67.9	27.5
2020	53.9	78.2	24.3
2021	51.8	79.2	27.4
2022	47.4	74.5	27.1
2023	41.7	70.2	28.5
2024	39.7	67.4	27.7

Source: (Qualifications Wales, 2024)

The attainment gap for children with special needs

486. There remains a significant attainment gap for students with special needs in all four jurisdictions (see Chapter 4 for more detail).

Sex and attainment

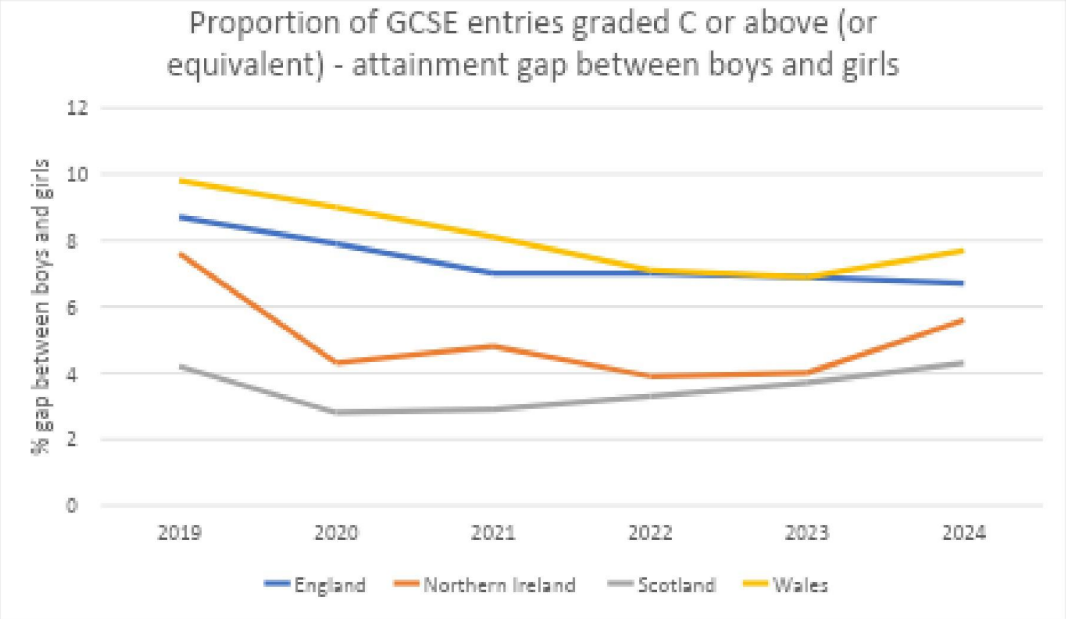
487. Looking at GCSE grade C or equivalent post pandemic, the sex attainment gap is narrower than it was pre-pandemic in all jurisdictions except Scotland, where it was already narrow, and remains the narrowest across the UK. Across all four jurisdictions, girls' attainment is now slightly worse overall than it was before the pandemic, and across all jurisdictions except Scotland, boys' attainment is now slightly better than before the pandemic. Although it is not yet possible to draw any conclusions about long term trends, further research is needed on the potential impact on sex and gender inequality more broadly, particularly where they intersect with disadvantage.

Table 19: Proportion of GCSE entries graded C or above (or equivalent) (%) – gap between girls and boys

	2019	2020	2021	2022	2023	2024
England	71.4 62.7 8.7	79.9 72 7.9	80.4 73.4 7	76.5 69.5 7	71.3 64.4 6.9	70.8 64.1 6.7
Northern Ireland	85.4 77.8 7.6	91.9 87.6 4.3	91.9 87.1 4.8	91.7 87.8 3.9	88.5 84.5 4	84.7 79.1 5.6
Scotland	80.3 76.1 4.2	90.4 87.6 2.8	87.2 84.3 2.9	83.3 80 3.3	80.7 77 3.7	79.5 75.2 4.3
Wales	67.6 57.8 9.8	78.2 69.2 9	77.6 69.5 8.1	72.1 65 7.1	68.3 61.4 6.9	66 58.3 7.7

Source: (Council for Curriculum, Examinations & Assessment, 2022, 2023, 2024; Qualifications Wales, 2024; Scottish Qualifications Authority SQA, 2024; Ofqual, 2025).

Figure 20: Proportion of GCSE entries graded C or above (or equivalent) – attainment gap between boys and girls, 2019-2024



Source: (Council for Curriculum, Examinations & Assessment, 2022, 2023, 2024; Qualifications Wales, 2024; Scottish Qualifications Authority SQA, 2024; Ofqual, 2025).

488. Looking at Key Stage 2 in England, attainment for boys and girls remains fairly static compared to 2022, with the gap decreasing by one percentage point; in 2024, 57% boys and 64% girls met the expected standard in reading, writing and maths combined, compared with 55% boys and 63% girls in 2022 (Department for Education, 2025a).

489. In Scotland, the literacy gap has remained but may be decreasing slightly at P7 (age 10-11), with a 12% gap between boys and girls in 2024 compared with a 13% gap in 2022 and 14% in 2019. In numeracy, there was a 1% gap in 2024 compared with 3% in 2019 (Scottish Government, 2024a). The proportion of boys and girls achieving the expected level has increased since 2019 in both literacy and numeracy.

490. In Wales, boys continued to outperform girls in procedural numeracy across all stages that are measured (Years 3, 6 and 9), with the gap increasing with age and between 2019 and 2023 (Welsh Government, 2024c).

Ethnicity and attainment

491. The pandemic's effects on educational attainment across ethnic groups have been complex and multifaceted (Mirza and Warwick, 2024). It is difficult to draw conclusions about the impact of the pandemic on the attainment of minority ethnic learners, because relatively small groups are subject to fluctuation and are often defined and reported in different ways. In some cases, data is reported in only two groups – 'white' and 'minority ethnic', which is problematic, as it obscures the vast differences in experiences and attainment between learners in different ethnic groups. Overall, there appears to be little research examining the longer-term impact of the pandemic on the experiences of minority ethnic learners and their families.

492. Using Department for Education data from England in 2019 and 2023, the Education Policy Institute analysed attainment gaps between ethnic groups, using White British as the comparator because it is the largest group. They found that,

> "*in later phases [of education, for example secondary school], the attainment of White British pupils has declined relative to most other ethnic groups in the wake of the pandemic, whilst the opposite is true in reception year (other ethnic groups have declined relative to White British)*" (Education Policy Institute, 2024).

493. It is, however, important to remember that despite these changes over time, there are still wide disparities in attainment by ethnic group; according to EPI's analysis, Chinese pupils are now over two years (27 months) ahead of white British pupils, eight months ahead of the next higher attaining group, Indian pupils, and almost 5 years ahead of the lowest attaining group, Gypsy Roma pupils. Gypsy Roma pupils are now two and a half years (30 months) behind White British pupils. Crucially, even where minority ethnic groups fare better than others in educational attainment, this is not generally reflected in labour market outcomes – a problem which is likely to have been exacerbated by the pandemic (Farquharson *et al.*, 2024). It is also important to note that – as before the pandemic – across every ethnic group across the UK, learners eligible for free school meals made less progress than those who were not eligible for free school meals (Department for Education, 2019c, 2024c).

494. Due to changes in assessment during the pandemic, and changes to migration patterns as a result of social and policy changes beyond the pandemic, it is not possible to draw any reliable conclusions about the long-term impacts of the pandemic on learners with English as an additional language (EAL).

Impacts on personal and social development, social relations and wellbeing

495. There are concerns about the long-term effects on socio-emotional abilities and opportunities to practise life skills, and there is some evidence that there is a long-term impact on anxiety and mental health: young people reported increased anxiety and mental health difficulties (McKinlay et al., 2022), which may have long-lasting effects on learning and engagement (NHS England Digital, 2021). Mental health overall was already declining pre-pandemic, but the pandemic exacerbated this growing issue. Specific concerns have been raised about the mental health and wellbeing of children, especially for those with special needs. In England, data from a large cohort of senior leaders showed that secondary schools generally reported more learner mental health/wellbeing needs than primary schools, in terms of range, incidence, frequency and severity. Schools with higher proportions of students receiving free school meals and with special needs were more likely to report higher rates of mental health and wellbeing-related needs (Lucas et al., 2023). Please see INQ000587958 for a more detailed discussion on mental health impacts.

496. The pandemic has also had a detrimental impact on access to specialist services across the UK. Whilst access to specialist support for learners with special needs had been an issue before Covid-19 (Van Herwegen, Ashworth and Palikara, 2018), the pandemic has exacerbated existing challenges in accessing specialist services, such as speech and language therapy, due to closures and resource constraints. The demand for support increased during the pandemic, but services struggled to keep up, leading to significant delays that are still ongoing. For example, in England there were 67,774 children on a waiting list for speech and language therapy – in January 2023, 35% of these (almost 24,000) had been waiting more than 18 weeks (Royal College of Speech and Language Therapists, 2023).

497. During Covid-19, the closure of schools reduced opportunities to interact with others to develop essential skills in speech, language and communication, with the greatest impact on children from disadvantaged backgrounds. In addition, students already on the list to receive support had their therapy sessions cancelled. This combination has led to an increase in demand for specialist support. Three quarters (77.1%) of speech and language therapists reported that the demand on their service had increased since before the pandemic, with over one-quarter of these (28.6%) indicating that the demand "*had at least doubled*" (Royal College of Speech and Language Therapists, 2022).

498. The pre-pandemic concerns regarding the learning experiences of children who face disadvantage, are part of larger issues of engagement and connection to school, often manifest in rising rates of absence but also the recent increases in unsettled, distressed behaviour that can lead to formal exclusion or suspension. School exclusion and school absence are both associated with lower rates of engagement with school and lower educational attainment and poorer long-term outcomes (Farquharson et al., 2024; Klein et al., 2024; McCluskey, Duffy, et al., 2024).

Impacts on attendance

499. Across the UK, school attendance was negatively impacted by the pandemic. As can be seen from Tables 20 and 21 in all jurisdictions and across all school types, the number of learner absences has increased since before the pandemic. Whilst some have argued that in 2021-2022 this rise was caused by families taking delayed family holidays and experiencing Covid-19-related anxiety, the number of learner absences remained high in 2022-23.

Table 20: Percentage of pupil absence (including authorised and unauthorised) for England, Scotland and Northern Ireland by sector in 2018 to 2019 and 2022 to 2023[1], rounded to 1 DP

	2018 to 2019			2022 to 2023		
	Primary	Secondary	Special	Primary	Secondary	Special
England	4.0	5.5	10.1	5.9	9.0	13.0
Scotland	5.4	9.2	9.8	7.8	12.2	12.8
Northern Ireland	4.8	7.1	10.0	6.4	10.5	14.2

Table 21: Percentage of pupil absence for Wales[2] by special needs in primary and secondary schools in 2018-19 and 2022-23

	2018 to 2019		2022 to 2023	
	All pupils	Special needs	All pupils	Special needs
Primary	6.2	8.7	8.0	11.1
Secondary	5.3	6.8	11.5	17.4

[1]No data collected in Northern Ireland for 2022 to 2023 due to industrial action or software issues. 2023 to 2024 data is presented instead.

[2]Data for special school sector not available

Sources: (Welsh Government, 2022, 2024a; Scottish Government, 2023b; Department for Education, 2024b; Department of Education, Northern Ireland, 2025).

500. In England, school attendance rates across primary, secondary and special schools are now lower than pre-pandemic (Long and Roberts, 2025) and the proportion of learners who have been 'persistently absent' (missed 10% or more of possible sessions, or 19 days over the course of a year/one day a fortnight) or 'severely absent' (missed 50% or more of possible sessions, and therefore absent more than they are present) has doubled. There are local area differences, but attendance rates remain consistently lower for learners eligible for free school meals, those with special needs and some minority ethnic groups (Education Policy Institute, 2024).

Figure 21: Attendance data for autumn 2023 and spring 2024 school terms in England

Absence rates remain higher than pre-pandemic

Autumn & spring terms, 2016/17 to 2023/24

	Overall	Covid-related
2016/17	4.5%	..
2017/18	4.7%	..
2018/19	4.5%	..
2019/20	..	..
2020/21	4.0%	29.4%
2021/22	7.4%	1.3%
2022/23	7.3%	..
2023/24	6.9%	..

Around a fifth of pupils are persistent absentees

Autumn & spring terms, 2016/17 to 2023/24

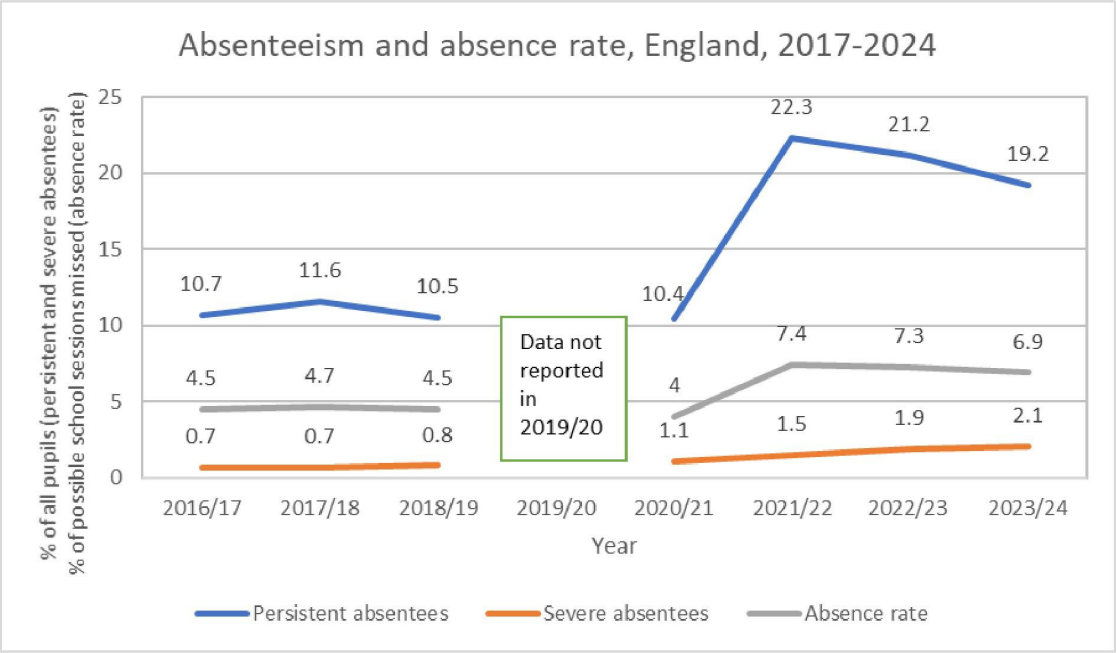
	Persistent absentees	Severe absentees
2016/17	10.7%	0.7%
2017/18	11.6%	0.7%
2018/19	10.5%	0.8%
2019/20	..	..
2020/21	10.4%	1.1%
2021/22	22.3%	1.5%
2022/23	21.2%	1.9%
2023/24	19.2%	2.1%

Note: Absence expressed as a proportion of possible school sessions missed (two sessions per school day, morning and afternoon). See Box 1 for definitions of absence rates.
".." indicates data not collected or reported in this year

Source: Department for Education, Pupil absence in schools in England: Autumn and spring terms 2023/24, custom table

Source: (Long and Roberts, 2025, p. 12)

Figure 22: Absenteeism and absence rate, England, 2017-2024



Source: (Long and Roberts, 2025, p. 12).

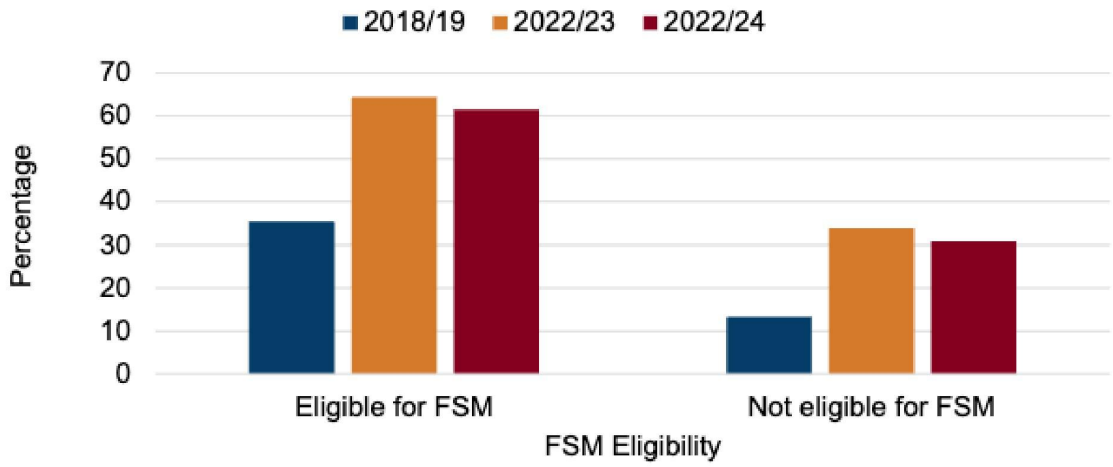
Note: absence rate is expressed as a proportion of possible school sessions missed (2 sessions per school day, morning and afternoon). Persistent absentee (absent 10+% of the time) and severe absentee (absent 50+% of the time) rates are expressed as a proportion of all pupils.

501. Northern Ireland's most recent data from 2023/24 (Department of Education, Northern Ireland, 2025) shows that attendance rates across all sectors have improved since 2022/23. Attendance is lower for learners entitled to free school meals, as was the case across the UK before, during and after the pandemic. Scotland's attendance rate has increased on 2022/23, but is still lower than the pre-Covid-19 period and continues a trend of small decreases in attendance since 2016/17. The decrease in attendance was slightly greater for children living in the most deprived areas (Scottish Government, 2024c).

502. The most recent official Welsh statistics (Welsh Government, 2025) provide a useful comparison of attendance rates between 2018/19 and 2023/24 academic years, which indicates that the percentage of missed possible sessions increased from 5.7% to 9.5% overall, with, again, higher absence rates for learners eligible for free school meals. The proportion of learners who have been 'persistently absent' (missed 10% or more of possible sessions) has doubled since before the pandemic, and within this group, absence rates for learners eligible for free school meals was

even higher. The percentage of half-day sessions missed by school-aged pupils has decreased from 10.1% in 2022/23 to 9.5% in 2023/24, possibly an early indication of a move towards stability, but it is too early to tell if this will be a long-term trend (Welsh Government, 2025, p. 5). The bar chart in Table 22 shows that the percentage of persistent absence has almost doubled for pupils eligible for FSM and more than doubled for not eligible pupils between 2018/19 and 2023/24. However, percentage absence is down compared to 2022/23.

Table 22: Persistent absence in schools in Wales, 2018/19 to 2022/23 (free school meal entitlement)



Source: (Welsh Government, 2024b).

Note: Welsh Government recently changed the threshold for 'persistent absence' to 10%, bringing it into line with England.

503. These statistics must give serious cause for concern, although it is also worth noting that there do seem to be some early signs of an improving picture, comparing 2023/24 with 2022/23, and absence rates may be showing some signs of stabilising in Northern Ireland, Scotland and Wales.

504. The table below shows differences in absence rates across the UK in 2023/24.

Table 23: Absence rates for England, Northern Ireland, Scotland and Wales, 2023/24

% of total half days

	Primary Schools		Post-Primary Schools	
	Overall absence	Persistent absence	Overall absence	Persistent absence
Northern Ireland	6.7	19.7	10.1	32.1
England	5.3	14.7	8.5	23.9
Scotland	7.5	23.9	12.4	40.6
Wales	7.9	24.7	12.0	37.1

Data sources: England - *Pupil Absence in Schools in England, Autumn Term 2023 and Spring Term 2024;* Wales - *Absenteeism from Primary Schools, Sept 2023 to Aug 2024* and *Absenteeism from Secondary Schools, Sept 2023 to Aug 2024; Summary statistics for schools in Scotland 2024.*

Source: (Department of Education, Northern Ireland, 2025, p. 9)

505. There are differences in how attendance is recorded across the UK, which makes direct comparison invalid, but it is clear that absence, and particularly persistent and severe absence, represents a serious issue, and one that will require direct attention and support to remedy. Linked to this, but also a concern in its own right, attention must focus on the higher absence rates for children facing disadvantage, including those with special needs, which were higher pre-pandemic across the UK, and continue to be higher than for the generality of learners. Hunt *et al.,* (2025) note that:

> "*pupil absence is a key, and growing, driver of the disadvantage gap. If disadvantaged pupils had the same level of absence as their peers in 2023, the attainment gap would have been almost one month smaller at age 11 and over four months smaller at age 16. The growth in the gap since 2019 at age 16 can be entirely explained by higher levels of absence for disadvantaged pupils*" (Hunt, E. et al., 2025, p. 6).

506. The causes of persistent absence are complex and not well understood. It is, however, increasingly clear that school absence not only drives disadvantage, but is also caused by it. This is not a new phenomenon but it has been exacerbated by the pandemic (Klein, Sosu and Dare, 2020). In England, the COSMO study has compared learners from similar backgrounds, with similar levels of prior attainment and demographic characteristics, and found that those whose families were struggling financially (defined in the study as having recently used a foodbank), who had special needs, or who had experienced mental health issues, were significantly more likely than others to be persistently absent (Macmillan, L and Anders, J, 2024).

507. Factors that might relate to the higher absences for these groups include Covid-related anxiety, difficulties adapting to new school routines, poor home-school communication and collaboration, and concerns about academic catch-up. Effective support was characterized by schools and families working closely together (McDonald et al. 2023). This highlights the importance of tackling child poverty, providing meaningful mental health support (see also the Expert Report on mental health and wellbeing by Newlove-Delgado and Creswell (2025) INQ000587958), and adequately resourcing special needs provision. The evidence on how to address persistent absence is weak (Education Endowment Foundation, 2023), but given that the causes are often multi-faceted and relate to these wider, complex factors, it is highly unlikely that punitive policy approaches such as fines would make a material difference to the children and families who are struggling to attend, except to heighten stress and drive them further into poverty.

508. A separate but equally significant challenge for education is the number of children missing from education altogether. In 2022/23, the number of children missing education rose by 23% compared with the previous year, with 94,900 children reported as missing education at some point in 2021/22 in England (Children's Commissioner for England, 2024). This is a much more prominent issue in England than in the other jurisdictions, perhaps as a result of its more fragmented education system (West, Wolfe and Yaghi, 2022), where it may be easier for learners struggling to maintain a connection with school to fall through the cracks. Crenna-Jennings et al. (2024) estimate that there were up to 400,000 children not in school in 2023, an increase of 53% from 2017.

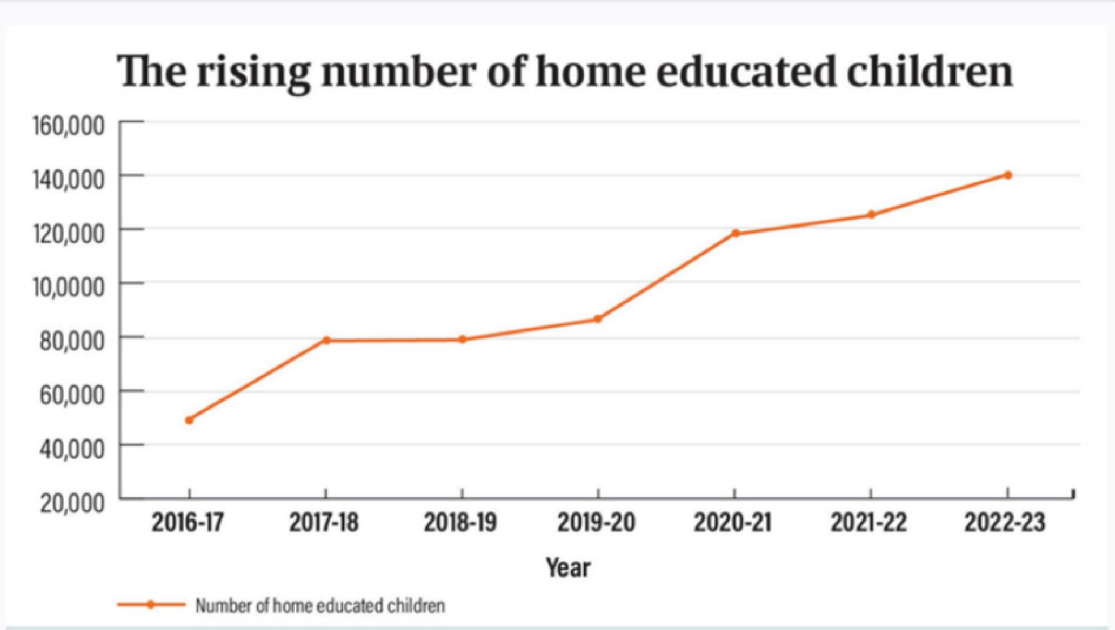
Impacts on home education

509. Parents in the UK have a legal duty to ensure education for their child, and while education is compulsory, school enrolment is not. Parents may choose, therefore, to educate their child at home as long as the education is full-time, efficient and suitable to the child's age, ability, aptitude and SEN. Education Otherwise, a UK charity for home educated children, set up to address parents' needs, found that for many families, the initial decision to home educate their child is often a result of negative perceptions of school, including lack of special needs provision, bullying, and dissatisfaction with the curriculum (Charles-Warner, 2024).

510. In England and Wales, specific concerns have been raised about more learners being home schooled as a result of Covid-19. In the school census in autumn 2024, local authorities in England reported 111,700 children in elective home education

(EHE). This is an increase from an estimated 92,000 in autumn term 2023 (the proportion of local authorities providing data reached 100% for the first time in summer 2024) (Department for Education, 2024a). The previous autumn term estimate includes adjustments made for non-response and is based on a figure of 87,700 (reported by 95% of local authorities). According to Department for Education statistics, the number of children now in home education has increased year on year since 2019. These increases are likely to be in part due to improvements in data quality due to data collection being mandatory in 2024, but Schools Week's analysis of freedom of information data from around two thirds of councils suggests even higher figures (see Table 24) (Whittaker, 2024). The proportion of learners receiving elective home education is greater in areas of high deprivation: of the 15 council areas that saw the largest increase in home education, six are ranked in the highest quintile for child poverty. Nine have above-average rates of free school meals eligibility (Department for Education, 2024a). According to the census data (Department for Education, 2024a), the main reasons for choosing to home school are 'mental health' (14%) and 'philosophical or preferential reasons' (14%), followed by 'lifestyle choice' (9%). Sixteen percent of students who are home schooled had an additional requirement of special needs support, while 6% had an education, health and care plan.

Table 24: Numbers of home educated children in England



Source: Whittaker (2024)- using Association of Directors of Children's Services (ADCS) and FOI data, 2024

511. In Northern Ireland, Scotland and Wales, parents voluntarily notify their local authority that they are home educating their children (unless they have withdrawn their child from school in which case, they are required to inform the local authority). Confidence in the accuracy of available data is low, and there is no official register of children who are home-schooled, but some patterns are nevertheless discernible. In Northern Ireland and Scotland, numbers seem to be rising though official data is limited. According to Welsh Government data, the rate of electively home educated pupils in 2022/23 is 11.1 of every 1,000 pupils, up from 1.6 of every 1,000 pupils in 2009/10, and the rate has increased each year since then across the country. From 2009/10 to 2022/23, there were increases in the rates of elective home education across all age groups, with the largest increase in 5-year-olds being home educated.

Table 25: Pupils being electively educated at home in Wales 2019 and 2023

	TOTAL
2019	2,517
2023	5, 330

Source: (Welsh Government, 2024d)

5.2. The extent to which changes in children's educational attainment since the pandemic can be regarded as part of a longer-term trajectory which commenced before the pandemic

512. It is too soon to be certain whether changes in children's educational attainment since the pandemic ought to be regarded as part of a longer-term trajectory, but a preliminary assessment is offered below. This discussion refers back to Chapter 1, which considered educational contexts in the UK prior to the pandemic.

513. Overall trends in children's attainment in the years leading up to March 2020 were largely positive. In line with European and other OECD countries, attainment levels were strong and rising overall. According to the last PISA exercise undertaken before 2020, the UK ranked second among major European nations, behind Poland and ahead of Germany in third place. School absence was not a cause of concern in the main. There was however concern about declining performance in reading and science, and marked differences within the UK jurisdictions (Ofsted, 2020e; Farquharson, McNally and Tahir, 2022b). The attainment gap had been narrowing between 2010 and 2020 (Equality and Human Rights Commission, 2023b). Attendance levels in school were generally stable and high.

514. At the same time, there were serious concerns about the ongoing impact of inequalities and disadvantage on learning and attainment, related to, for example, socio-economic status, gender and sexuality, special needs and/or disabilities including health or mental health challenges, care experience, exposure to domestic violence or abuse, minority ethnic status, asylum or refugee status, whether a child is 'looked after' by the state, or has experienced trauma or loss. It was already well recognised that any one of these factors was likely to hinder learning progress, but where more than one factor was present, there was robust evidence of ways in which this compounded disadvantage even further (Robertson and McHardy, 2021). Education as a public service was seen to be struggling under a range of pressures, and there were regular reports of issues related to teacher recruitment and retention, workload, teacher stress, and financial constraints, and calls for increased funding for schools (UNISON, 2018; Department for Education, 2019d; Educational Institute of Scotland, 2019; The Educational Institute of Scotland EIS, 2019; Park and Shin, 2020; Sibieta, 2022).

515. As the UK emerges from the aftermath of the pandemic, many of the same issues remain at the forefront of governmental concern for all four jurisdictions. The

pandemic not only highlighted, but in some cases exacerbated, the challenges for learners and the schools seeking to support them. These impacts did not fall evenly on all learners and early evidence suggests that those children who were already facing the greatest barriers to learning are those even more likely to miss out on educational success (Blundell *et al.*, 2021). Poverty has been, and remains, the most significant of the many barriers to learning. Those living in poverty are also more likely to have special needs, and poverty increases the likelihood of non-attendance and of school exclusion; all of which increase risks of under-achievement and longer-term effects on life chances overall.

516. At the time of writing this report, it is too soon to state with confidence whether interventions and initiatives introduced to address the challenges enumerated in Chapters 3 and 4 will be able to meet and mitigate these challenges effectively. In the final part of the report, attention turns to those interventions and initiatives in order to assess whether they are having, or are likely to have, a difference in the long term.

5.3. The influence of the pandemic on the adoption and use of technology in classrooms

517. While Education Technology (EdTech) has been available for over 20 years (Cardim-Dias and McGlade, 2024) it is suggested that the COVID-19 pandemic has accelerated the adoption and application of digital technologies in UK classrooms (All Party Parliamentary Group on Education Technology, 2021; Bacsich and Doody, 2023; Crick *et al.*, 2023; Sun and Jiang, 2023; Cardim-Dias and McGlade, 2024). Platforms like Google Classroom and Zoom remain valuable and embedded in school routines (Pudelek, 2022; Zhang and Wasie, 2023). The rapid adoption of technology in the pandemic has translated to increased teacher engagement, confidence, and competence with digital tools, leaving many feeling better prepared for future pedagogical technology use (Moorhouse, Wong and Li, 2023; Meace-Williams, 2024; Lo *et al.*, 2025). The pandemic also highlighted significant and pervasive disparities in access, which remain a challenge to address in the post-pandemic era (Bacsich and Doody, 2023; Crick *et al.*, 2023; Roberts-Tyler *et al.*, 2023).

UK initiatives and investment in classroom technology

518. Accelerated growth in the provision and use of technology in UK classrooms is reflected in national policy, with substantial recent and continued government investment directed towards EdTech (Cardim-Dias and McGlade, 2024). The UK

Digital Strategy 2022 (Fair, Deshmukh and Sackley, 2024) has a strong focus on enhancing digital skills across all levels of education, and places considerable emphasis on teaching computing (Department for Digital, Culture, Media & Sport, 2022). Recent innovations have also led to UK-wide discussions on the potential of Artificial Intelligence (AI) in education (Moorhouse, Wong and Li, 2023; Teacher Tapp, 2024).

519. The government in England is actively investing in and promoting uptake of classroom technology through several initiatives, and continues to publish and update standards in the use of technology in English schools ((Department for Education, 2022b), Updated 10 March 2025)). For example, this year the government invested £45 million in England to upgrade school infrastructure, including £25 million for wireless networks (Department for Education and Department for Science, Innovation and Technology, 2025b). Last year, the Department for Education (DfE) invested in over £4 million in AI tools for schools aimed at reducing teacher workload, including to the Oak National Academy (Department for Science, Innovation and Technology and Department for Education, 2024), with an additional £1 million to support innovative uses of data to aid teachers (Department for Education and Department for Science, Innovation and Technology, 2025a). The DfE has adopted a range of diverse approaches to promoting classroom technology use, for example with plans for teacher training to include a focus on assistive technologies for SEND students from 2025 (Department for Education and The Rt Hon Bridget Phillipson MP, 2025), while the "Plan Technology For Your School" tool assists schools in making informed technology decisions (Department for Education, 2025c). Support materials have also been published for schools and colleges in relation to safe and effective educational uses of AI in 2025 (Department for Education, 2025d).

520. The Department of Education in Northern Ireland presents itself as a 'recognized leader in the use of ICT in education' (Mccaffrey-Lau *et al.*, 2021; Taggart and Roulston, 2024) NI's Education Authority (EA) launched a digital change strategy in 2022 focusing on enhancing learning through the Education Information Solutions (EdIS) Programme with an initial investment of £750 million (Education Authority, 2022; Passey, 2024; Taggart and Roulston, 2024). Significant recent investments through this programme include the provision of 20,400 devices to teachers in 2022 (Passey, 2024; Taggart and Roulston, 2024). Northern Ireland continues to benefit from a long-standing, managed service called C2k (now overseen by EdIS and under redevelopment), provided free to all 1200 schools, including broadband connectivity, hardware, and software (Taggart and Roulston, 2024). Nevertheless, the 2004

education technology strategy has not been updated although a draft document was produced 2023 (Taggart and Roulston, 2024), potentially contributing to inconsistent digital skills among teachers and those training them (Mccaffrey-Lau *et al.*, 2021; Taggart and Roulston, 2024).

521. Scotland also continues to take a centralised approach to the provision and advancement of digital learning, with efforts to improve its digital learning platform, Glow, and other digital services such as SCHOLAR. Additionally, £9 million has been made available to purchase digital devices and data for 25,000 digitally excluded children (McCluskey, Fyfe, *et al.*, 2024). Teacher upskilling in digital learning is also ongoing at local levels, with issues of compliance and budget administration allocated to local committees.

522. Wales is also continuing to invest in classroom technology, taking a centralised approach to EdTech provision and services, and focusing on digital access through online platforms and strong digital connectivity (Welsh Government, no date). It has invested over £200 billion over the last decade to develop digital infrastructure and digital learning in maintained schools (Welsh Government, no date). The Welsh Government is re-procuring its Hwb web platform, a national bilingual digital resource for education, with an estimated investment of £8 million. Strategically, the Welsh government has no discrete policy relating solely to educational technology. There are however several strategies that address EdTech. For example, the Welsh Government's innovation strategy, 'Wales Innovates: Creating a Stronger, The Curriculum for Wales Design Professional Learning Programme includes aspects of digital literacy and the use of technology within the new curriculum (Welsh Government, 2023). That is, the Hwb and digital services are embedded within wider strategies supporting the delivery of the Curriculum for Wales (Welsh Government, no date).

Current usage levels of technology in classrooms

523. In terms of how far initiatives and investments have translated into practice, overall, the UK is noted for its high ranking in educational digital maturity (Bacsich and Doody, 2023). Nevertheless, while technology is being used in schools across the UK, the level and nature of this usage varies, and there is limited and often inconsistent knowledge surrounding this (All Party Parliamentary Group on Education Technology, 2021; Cardim-Dias and McGlade, 2024). EdTech strategies and research vary across the UK's nations. Similarly, there is little oversight of UK-wide EdTech structures, leading to the fragmented procurement of a plethora of systems

(Bacsich and Doody, 2023). More extensive data is available on usage in English schools than in the other three jurisdictions.

524. The DfE's Technology in Schools Survey (IFF Research, 2023) in England found that more schools had a digital strategy in place in 2023 compared to 2020-21 (increasing from 54% to 68% in secondary schools and 38% to 55% in primary schools). Considering the continued investment by the UK Government in EdTech in schools, particularly to reduce teacher workload, the Education Policy Institute suggests further research may be required to understand how far EdTech is being used in classrooms, as well as the drivers influencing these decisions, particularly schools with more disadvantaged learners (Cardim-Dias and McGlade, 2024).

525. Significant issues with teacher and pupil access to basic technology persist in England (IFF Research, 2023; Cardim-Dias and McGlade, 2024; Teacher Tapp, 2024). While the majority of teachers have hardware access, IT leads reported that in 1% of primary school and 2% of secondary schools, laptops were unavailable for teachers, and it was unclear whether teachers with access could take these devices home or not e.g. for lesson-planning (at least 6% were definitely not allowed to do so) (IFF Research, 2023; Cardim-Dias and McGlade, 2024). An even starker picture is painted by recent TeacherTapp teacher survey data from nearly 8,000 UK teachers. For example, a quarter of teachers reported they did not have access to a device they can use outside of school (Teacher Tapp, 2024).

526. In 2023, most teachers surveyed by the DfE (87 per cent) reported using some form of hardware, such as laptops or interactive whiteboards to some extent during their lessons, while only 72% said they used this hardware frequently (IFF Research, 2023; Cardim-Dias and McGlade, 2024). Similarly, according to recent TeacherTapp data, while 90% of teachers in England reported using technology in the last year to support teaching and learning techniques, only 48% reported using EdTech frequently for these purposes (Cardim-Dias and McGlade, 2024; Teacher Tapp, 2024). That is, availability of technology, including hardware and devices, does not necessarily translate to actual usage in the classroom (IFF Research, 2023).

527. Technology is used in England across a range of classroom activities, most commonly for delivering lessons (99% leaders, 98% teachers) (IFF Research, 2023). For supporting teaching and learning, it is most commonly used for homework (90% of teachers) and collaborative learning (80%), with 48% of teachers setting homework using technology 'a lot of the time' for this activity. More recently, there has been a steep rise and growing interest in the use of AI in schools in England

(Teacher Tapp, 2024). Last year, a quarter of surveyed teachers reported having used AI tools for school work in the past week, with more than half having used it at least once in their school work, and one in ten secondary teachers having used it during a lesson (Teacher Tapp, 2024). Teachers remain optimistic about AI capabilities, with 50% saying that they can see it helping with creating lesson content, while 37% see it helping to analyse assessment data, 37% seeing benefits for lesson planning (Teacher Tapp, 2024).

528. Online lessons continue to be used in schools following its rapid acceleration during the pandemic (Bacsich and Doody, 2023). 'Online lessons' is a multi-faceted term, which could refer to learning activities mediated by technology that involve accessing or interacting with online resources or platforms in a variety of contexts. This can range from lessons fully delivered remotely (for example, during the pandemic) to activities within a physical classroom setting where technology is used for online access or engagement as part of the lesson structure. There are no precise figures for each of these variations in usage or across different UK jurisdictions. Data collected in England suggests that technology is used for offering independent/online learning (including in class) by 93% of school leaders and 72% of teachers (IFF Research, 2023).

529. While there have been considerable recent advances in staff skills and training, there remains room for improvement. Eighty-four percent of leaders thought that just over half their teaching staff were confident using technology, while 70% of teachers had participated in EdTech training since September 2021, most commonly on pupil safety (43%) or new software (41%) (IFF Research, 2023). In terms of areas for improvement in training and support, teachers most wanted opportunities to trial new technology (54%), subject specific support (52%), and the ability to talk to other schools (49%) to improve their knowledge. Secondary teachers were more interested in subject-specific support (61% vs 45% primary) and evidence summaries (24% vs 18% primary) (IFF Research, 2023).

530. The most recent Programme for International Student Assessment (PISA) assessment (2022/23) provides data on digital usage for each of the four jurisdictions, although it is challenging to make comparisons for reasons outlined below.

531. In England, around half of all learners spent at least one hour per day using digital resources for learning activities in school (46%), and 49% for learning activities before and after school (49%), and at the weekend (53%) (Ingram et al., 2023b). In

relation to types of use, 70% of English pupils accessed the internet in school at least once a week, and 71% used a desktop or laptop computer at least once a week (Ingram *et al.*, 2023a). In contrast, 45% of pupils reported using a school learning platform or learning management system only once or twice a month or even less often (Ingram et al., 2023b).

532. The data on technology usage in Northern Ireland classrooms from PISA 2022 is limited (Ingram *et al.*, 2023b). Sampling standards were not fully met, and response rates for schools and pupils were below the required thresholds with higher-achieving pupils likely over-represented (Ingram et al., 2023c). Consequently, caution is strongly advised when considering these findings.

533. In Northern Ireland, around half of all learners spent at least one hour per day using digital resources for learning activities in school (39%), with slightly smaller proportions for learning activities before and after school (33%), and at the weekend (34%) (Ingram *et al.*, 2023b).

534. In relation to types of use, 74% of learners in Northern Ireland accessed the internet in school at least once a week, and 74% used a desktop or laptop computer at least once a week (Ingram et al., 2023c). In contrast, 61% of pupils reported using a school learning platform or learning management system only once or twice a month or even less often (Ingram *et al.*, 2023b).

535. It is difficult to compare Scottish learner's classroom technology usage to usage for the other jurisdictions, as the data was reported using different metrics to the other jurisdictions (hours of usage versus proportion (%) of learners using technology in classrooms). The report does however provide a useful comparator to the OECD countries' average for most datapoints.

536. Overall, Scottish learners have a slightly higher level of technology usage compared to the OECD average with learners in Scotland spending an average of 2.2 hours per day compared to 2.0 hours per day across all OECD countries (Scottish Government, 2023a).

537. In Wales, around half of all learners spent at least one hour per day using digital resources for learning activities in school (49%), with slightly smaller proportions for learning activities before and after school (38%), and at the weekend (42%) (Ingram *et al.*, 2023c).

538. In relation to types of use, 80% of Welsh pupils accessed the internet in school at least once a week, and 84% used a desktop or laptop computer at least once a week (Ingram *et al.*, 2023c). In contrast, 33% of pupils reported using a school learning platform or learning management system only once or twice a month or even less often (Ingram *et al.*, 2023c).

5.4. Post-pandemic evidence of the effectiveness of online teaching

539. In recent years, claims about the effectiveness of educational approaches (typically focusing on the impact on learning outcomes such as attainment) have often been underpinned by rigorous and systematic syntheses of evidence from multiple studies. However, such work "*will never provide a precise prediction of what will be effective in any future application of research findings to a new [educational] context*" (Higgins, 2016, p.49). Rather, it provides guidance on "*what is likely to be beneficial based on existing evidence*" (Higgins, 2016, p.49). It is important to note that most (if not all) of the studies included in evidence syntheses relating to the effectiveness of online learning relate to research on carefully planned and well-resourced interventions targeting specific groups of learners. These studies of online learning are markedly different to the emergency remote learning that took place during the pandemic (Education Endowment Foundation, 2020).

540. As the pandemic began, there was limited evidence on the effectiveness of online and blended learning to support education in schools, and what was available had important limitations such as combining research evidence from both school and university contexts (Education Endowment Foundation, 2020; Ofsted, 2021a). The dearth of research in school contexts at this timepoint is perhaps surprising given the increasing interest in the potential of such approaches to address a range of issues, as noted in Chapter 2. For example, online learning can enable learners to study a subject which is not on offer at their school (Lewin *et al.*, 2008; Molnar *et al.*, 2023). Notably, at the time, there was very little research on the use of online learning in primary education (Education Endowment Foundation, 2020); this remains the case to date.

541. In relation to pre-pandemic evidence, a commonly cited rigorous meta-analysis (Means *et al.*, 2013), including 27 studies of online learning, suggests no difference in student learning outcomes when comparing purely online learning to face-to-face learning (irrespective of learner age). However, and unsurprisingly, their analyses suggest that the effectiveness of online learning (in relation to learning outcomes)

depends on the context in which it is delivered and the types of learning activities offered (that is, the learning design). Only two of the 27 studies included in the meta-analysis reported a negative impact of online learning relative to in-person learning. This meta-analysis synthesises evidence from studies on both blended learning and online learning, involving children at school (7 studies) but also undergraduates (21 studies) and postgraduates (21 studies). The evidence is also drawn from a wide range of subject areas, with medical and healthcare courses accounting for almost half the studies. The authors acknowledge the limitations of this broad coverage but argue that there would be insufficient evidence to draw upon if the focus were to be narrowed (e.g. to school contexts only).

542. Since the pandemic, some researchers have synthesised evidence on the effectiveness of online learning compared to in-person learning drawing on research that gathers data from school contexts, typically from the turn of this century onwards. As might be expected, these reviews suggest mixed results. For example, ongoing research on the effectiveness of 'virtual schools' in the US suggests these fully online educational institutions "*fail to promote positive academic achievement outcomes*" (Topping *et al.*, 2022; Mann, 2023, p. 39). However, virtual schools are a complex phenomenon typically attracting learners with specific characteristics, and this evidence should be considered carefully in light of this. In contrast, Topping and colleagues (Topping *et al.*, 2022) undertook a comprehensive and systematic review of literature published from 2000 onwards (before and during the pandemic) focusing on school contexts only, from eight databases. Articles meeting the inclusion criteria were coded in relation to evidence of impact on 'outcome' (not explicitly defined by the authors) as better, the same, or worse than the comparison (typically regular instruction but sometimes another computer-based intervention). Of the 1848 studies included in the review, 85% (n=1576) were judged by the authors as 'better', 8% (n=146) as the same, 3% (n=46) as worse, and 5% (n=80) were unclear. Whilst reporting that blended learning is more effective ('better') than online learning "*in the best of circumstances*" (p. 2) (agreeing with the earlier findings presented by Means and colleagues in 2013), of the 134 studies identified that focused specifically on online learning, 99 studies (74%) reported that it was better than 'regular instruction' and 17 studies (13%) concluded that there was no difference; only 11 studies (8%) reported that online learning was less effective than regular instruction (as measured by an outcome). Thus, in their review the vast majority of studies selected for review suggest that online learning is at least as effective as in-person learning. As a result, Topping and colleagues (Topping *et al.*, 2022, p. 2) suggest that online learning "***may***

(emphasis added) be substituted for regular instruction provided this can be done efficiently." However, the authors acknowledge the limitations of their approach including the potential impact of publication bias (researchers more likely to report positive results) and the crude classification of the impact on outcomes (better, the same, worse, unclear). The authors also provide an extensive list of design considerations for teachers in an accompanying supplementary appendix. That is, while the evidence is broadly positive, teachers still need to make a range of design decisions when implementing online learning. The likely effectiveness of online learning in a specific context will depend on a range of factors.

543. Many researchers have identified enablers of effective online learning (leading to a positive impact on learning outcomes) such as teacher and student knowledge and skills (including student self-regulation skills), and sufficient access to relevant technology (Johnson *et al.*, 2023). Pre-pandemic evidence suggests that facilitating peer interaction and student reflection enhances learning outcomes (Education Endowment Foundation, 2020). Interaction is easier to facilitate in real-time through synchronous online learning activities. However, one recent review suggests there is no difference between synchronous and asynchronous online learning, the benefit of the latter being that students can progress at their own pace (Zeng and Luo, 2024). Another recent review also suggests that scaffolding (providing guidance and support) in online learning can positively impact on learning outcomes, in both primary and secondary education, and particularly for subjects that involve structured activities such as mathematics (Zuo *et al.*, 2023). These exemplars illustrate some of the factors that teachers need to consider when designing online learning.

544. As noted above, (emergency) online learning during the pandemic was markedly different to carefully planned and well-resourced online learning. There is very little evidence of the specific impact of online learning on learning outcomes at this time. A study of the impact of school mode on standardised test past rates suggests that in-person learning during the pandemic was more effective than hybrid (blended) or fully online learning (Jack *et al.*, 2023). A synthesis of 205 studies conducted between 2020 and 2022 (Lampropoulos and Admiraal, 2023) reports on stakeholder perspectives of online learning in schools during the pandemic. Secondary school teachers had mixed views about the effectiveness of online learning provision (broadly conceived in this particular review) compared to in-person provision, but students preferred in-person learning. Some primary school teachers felt that online learning was less effective than in-person learning and most students preferred in-person learning. Parents felt that online learning was less effective for younger

learners. As reported in Chapter 2, many schools, teachers and students were not prepared for the rapid pivot to online learning which would have negatively impacted on the effectiveness of this mode of educational provision at the time. That is, during the pandemic online learning provision was not likely to be as effective as in-person learning provision because it was not carefully planned and resourced. This is supported by the evidence on learning loss presented in Chapter 3.

545. It should be noted that there is very little evidence of long-term impact of online learning on learning outcomes of school students given that it is a relatively nascent research field (Johnson *et al.*, 2023).

5.5. The overall impact of the pandemic on challenges facing schools in the UK

546. The public sector funding constraints from 2008 onwards meant that schools entered the pandemic in a weaker position than might otherwise have been the case. As a sector, it had experienced a significant decline in funding, affecting capital and revenue budgets. Widespread issues with teacher recruitment and retention, including headteacher recruitment and retention, were often ascribed to the stresses associated with working under very difficult conditions caused by lack of funding. Overall, then, the landscape of education was already highly challenging as the pandemic began.

547. Throughout the pandemic, children's learning was interrupted, disrupted and deeply impacted by the rapid and repeated changes in legislation, in advice and school openings, partial openings, and closures of successive lockdowns. As discussed in detail in Chapters 3 and 4 of this report, effects have been seen on children's physical development, speech and language, social, emotional and mental health needs, play, social skills and health and well-being. As previously highlighted, these effects have not fallen evenly on all children and those learners who already faced the greatest barriers to learning and achievement have been most deleteriously affected.

548. The effects on personal and social development are clear from reports on the rise of distressed behaviour in school (National Association of Schoolmasters Union of Women Teachers, 2023; Scottish Government, 2023b), as indicated by sharp increases in formal exclusion and suspension rates, and further rises in teacher stress and absence. It is particularly alarming that declines in attendance and increases in exclusion continue to be greater among disadvantaged learners and

those with special needs, despite all that is known about the multi-layering effects of disadvantage.

549. In the initial months of the return to school, there was often an emphasis on recognising the trauma caused by the pandemic and the abrupt and unprecedented way it brought to a standstill so many routines of daily life. Many schools provided additional counselling, or expanded parts of the curriculum which focused on personal and social health education when schools reopened fully. At the same time, policy makers and school leaders in the UK and many other countries were raising concerns about the impact of the pandemic on children's 'school readiness', 'learning loss' and the need 'to catch up'. There has also been an increasing emphasis on a perceived need to 'get back to normal' (Baird *et al.*, 2025), with funds, especially in England, provided for additional tuition to enable academic recovery. However, the evidence reviewed in this report highlights the dangers of teaching which is overly narrow in focus and likely to be counterproductive in the longer term. In our opinion, there is a need to be wary of a 'catch up' narrative where it a) disregards the impact of under-investment over many years in good quality, well-resourced education and childcare; b) ignores the school staffing crisis, and c) ignores the financial impact of the cost-of-living crisis, which has been further exacerbated by the pandemic, leading to an increasing number of families who live in poverty, deep poverty and, indeed, destitution. This is deeply worrying in terms of outcomes for these children and their families but also for society at large.

5.6 Summary

550. Governments across the UK are investing in classroom technology and developing strategies. There is a steep rise and growing interest in EdTech innovations such as AI tools. All four jurisdictions are continuing to invest in infrastructure although to different extents. Despite these investments, knowledge of actual UK-wide classroom usage is often inconsistent, and detailed data is limited outside of England.

551. In summary, educational attainment has generally declined since the pandemic, with significant learning losses observed globally and also within the UK. The impact of these declines does not fall evenly on the school population. Although it is too early to be certain of a long-term trend, there are strong indications that the pandemic has both highlighted and exacerbated existing inequalities, and has had most serious negative impacts on those learners who already face the most severe challenges in learning and attainment. When teacher assessment was introduced during the

pandemic, overall grades rose across the UK, but inequalities based on socioeconomic status worsened. Impacts on children who were in transition years and exam years were significant. Poverty and inequality underpinned and intensified many of the challenges faced as a result of the pandemic. For learners who were already marginalised, and, especially for those experiencing multiple challenges and adversity, this has further impacted on their opportunities to thrive and succeed in education.

Chapter 6. Addressing the impact of the pandemic: Recommendations

Summary - Addressing the impact of the pandemic: Recommendations

Across the UK, governments formulated policy and provided additional funds to support schools as they emerged from the pandemic. These funds supported a wide range of interventions and initiatives, focused on the formal curriculum, school attendance, mental health and wellbeing (for learners and staff), and supporting special needs. The main approaches were one to one 'catch-up' tutoring, small group teaching and increased staff-child ratios. Many of the initiatives aimed to help children facing disadvantage. Evaluations are sparse but indicate that the additional funding led to improvements in pupil attainment, motivation to learn, confidence and engagement. All policies to support Covid-19 recovery have now ended and schools are now struggling to meet significantly increased learner needs related to mental health and wellbeing, school attendance and declines in attainment levels, especially for disadvantaged children. Addressing the impact of the pandemic requires a) a long-term strategy of direct investment in front-line provision; b) an evidence-based approach to decision-making, harmonised across the UK; and c) a comprehensive plan for schooling in the event of future pandemics. The authentic involvement of children and their families, largely missing to date, is now vital for planning to be effective.

6.1. Key reviews and initiatives introduced to mitigate the impact of the pandemic

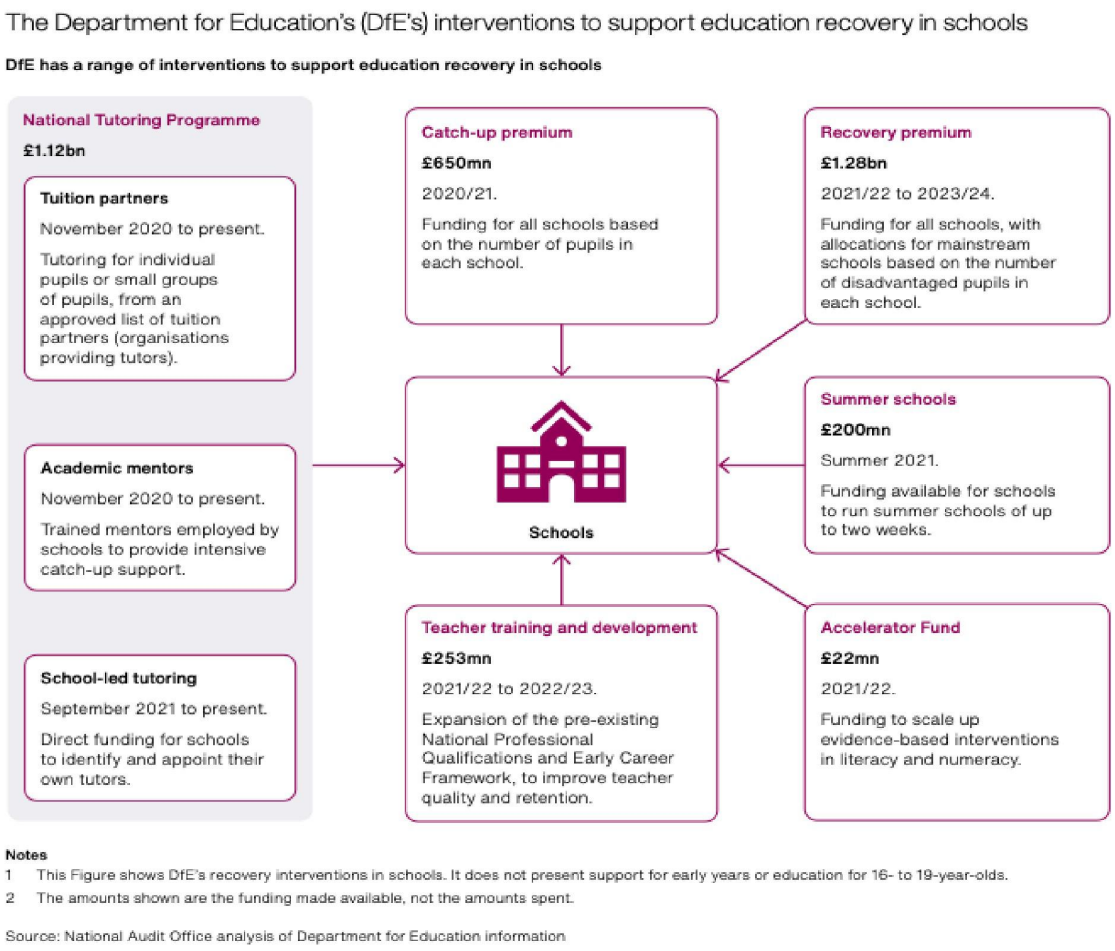
552. Across the UK, governments formulated policy and provided additional funds to support schools as they emerged from the pandemic. These funds supported a wide range of interventions and initiatives, mainly focused on the formal curriculum, school attendance, mental health and wellbeing (for learners and staff), and supporting special needs.

553. In England, financial support was provided to all schools. Recovery Premium funding, for example, was made available to mainstream and special schools and pupil referral units, with the level of support linked to their numbers of disadvantaged learners, as measured via 'pupil premium' numbers. Its aim was to resource evidence-based interventions and was provided alongside a national programme of subsidised tutoring: the National Tutoring Programme (NTP) (Department for Education, 2024d). The Recovery Premium provided £300 million of additional

funding for state-funded schools in the 2021/22 academic year and £1 billion across the 2022/23 and 2023/24 academic years. Recognising the higher running costs of specialist settings, the latter received a higher rate of funding. In 2021, the government also allocated £200 million for secondary schools to run summer schools, providing an opportunity for learners to catch up on missed education. Special schools and alternative provision settings were also eligible to access this funding, aiming to ensure that learners with special needs could benefit from additional learning opportunities during the summer break. Recovery Premium funding and the NTP both ended in March 2025.

554. The figure below illustrates the areas targeted for additional support by the Department for Education in England, as at Feb 2023.

Figure 23: Areas targeted for additional support by DfE



Source: (National Audit Office, 2023, p. 6).

Note: The Department for Education's Accelerator Fund (2021-2025) is part of the overall investment in post-Covid-19 education recovery in England.

555. Similar approaches and targeting of support were evident across the rest of the UK. In Northern Ireland additional support was offered through school wellbeing initiatives, summer schools, extension of school holiday food grant schemes, and continuation of free school meal allowances during periods of school closure (Keyes, 2022; Comptroller and Auditor General, 2023). The main support was given through a programme called 'Engage' in Northern Ireland, which provided funds of £57 million (Education and Training Inspectorate, 2021). Some funds were available to employ substitute teachers in all schools, but a higher level of resource was provided to schools with higher than average free school meal entitlement. It aimed to provide additional one to one, small group and team teaching. An early evaluation (Education

and Training Inspectorate, 2021) indicated promising results. A summary of these results is offered below, as they offer a clear and typical example of the kinds of work undertaken so successfully in schools across the UK to help support learning and engagement, and wellbeing during this exceptionally challenging period.

Table 26: Outcomes of the Engage Programme for schools, 2020/23, Northern Ireland

Schools were given autonomy to devise their own programmes which resulted in a multidisciplinary approach and a wide range of interventions tailored to meet the academic and emotional health and wellbeing needs of pupils. In almost all primary schools, the funding was used to deliver intervention programmes which resulted in improvements in the pupils' literacy and numeracy skills, and their emotional health and wellbeing. In most post-primary schools, intervention programmes combined emotional health and wellbeing and academic support across a variety of subjects including English and mathematics. As a result, there was an improvement in a range of pupil outcomes, including pupil attainment, motivation to learn, confidence and engagement. During the period of remote learning from January to March 2021, most of the schools sampled continued with the Engage Programme, albeit with modifications to the provision planned initially. The modifications included amendments to the cohort of targeted pupils, moving the programme online and offering targeted pupils access to supervised learning in school. Teachers benefitted from the opportunities afforded through the programme to enhance their professional learning, most commonly through upskilling in digital learning strategies and training in counselling for mental health and wellbeing. The Department of Education, Northern Ireland made appropriate modifications to the programme throughout the academic year in response to feedback from the Strategic Oversight Group, comprised of principals, teacher unions, employing authorities, Comhairle na Gaelscolaíochta (CnaG), Controlled Schools' Support Council (CSSC) and the Education and Training Inspectorate (ETI). The challenge of securing specialist teachers in Irish-medium schools was addressed by allowing flexibility in the use of classroom assistants. In post-primary schools, flexibility was given to deliver the programme outside of normal school hours.

Source: (Education and Training Inspectorate, 2021, p. 4)

556. The schools welcomed the additional funding and the interventions developed were able to make a difference. It is also apparent from the summary above that the Department of Education, Northern Ireland worked closely with stakeholders and used feedback to adapt the programme over time; evidence of the benefits of authentic collaboration between policy makers and the field of practice. Unfortunately, there does not seem to have been a final evaluation or follow-up report published when the scheme ended in March 2023.

557. In Scotland, in 2020-21 and 2021-22, additional pandemic-related spending on early childhood, primary and secondary totalled £250 million. £230 million of the total was spent on education recovery and additional staff to, for example, help reduce class sizes and provide individual support. In addition to this, some general grants were also education or child-focused, including £15 million for a 'summer of play' in 2021; £22 million for school meal support during holidays and £50 million to increase the number of teachers and support assistants (Sibieta, 2023).

558. Similarly, the Welsh Renew and Reform programme centred its support on three main groups: children in early years education, children living with disadvantage, and post-16 learners (Welsh Government, 2021b). It included funding for a 'summer of fun' in 2021, additional extra-curricular sport and cultural activities, and support with Welsh language learning. Funds allocated were £150 million in 2021-2022 and £220 million in 2020-2021 (Welsh Government, 2021b) though it is difficult to ascertain whether this was all additional funding or included some redirected budget.

559. Governments across the UK also made a number of resources available to help early years settings, schools, and 16 to 19 education providers to support children and young people's wellbeing and education recovery. In England, for example, the 16-19 Tuition Fund allocated £420m from 2020/221 to 2023/24 to all 16-19 institutions, to provide small group tuition to students with the greatest needs. A full evaluation is not yet available but early data indicates good success and student satisfaction (Biermann, Mackay and Redondo, 2023). Similarly focused on support for 16-19 year olds in England, additional hours were introduced into 16-19 educational settings from 2022/23 to aid recovery. A recent evaluation (Institute for Employment Studies and BMG Research, 2024) noted that most of the funding was used on 'non-qualification activities' which generally included study skills, support for mental wellbeing, and support for employability skills/work placements. This report found that, although implementation was not without its challenges, e.g., in relation to staffing the additional hours) most institutions and most learners were positive about

the initiative. These initiatives were designed to assist educators in addressing the unique challenges faced by all students and especially those with special needs, both during the pandemic and also as the country emerged from it.

560. The table below shows estimates of the additional spend per child across the UK over this period within the overall per-child spending context for education since 2011.

Table 27: Spending on education across the UK

	Real-term change in per-child funding between 2011 and 2022	Per-child funding in 2022	Real-term change between directly before pandemic and 2022	Total pandemic-related additional funding per child to schools, (2020-21 and 2021-22)
Scotland	14.9%	£8,500	+ 6.5%	£340
England	2.9%	£7,200	+ 8%	£300
Wales	4.2%	£7,200	+ 8%	£800
Northern Ireland	2.1%	£7,200	+ 11%	£790

Source: (Smith *et al.*, 2024, p. 30)

561. In reading the table above, it is important to be aware of the different kinds of pressures on education budgets across the four jurisdictions. Learner numbers increased by 13% between 2009-10 and 2022-23 in England, compared to 8% in Northern Ireland, 2% in Scotland, and 0% in Wales. Scotland has seen significantly higher spending since 2014; and an 11% increase in Northern Ireland can be partially explained by a delayed agreement over teachers' pay (Sibieta, 2023).

562. The pandemic also saw a rapid expansion of resources and support for health and wellbeing across the whole of education in the UK. These included, for example, the 'Well-being for Education Return Programme' in England, at a total cost of £15m over 2020/21 and 2021/22, new teacher resources to support positive mental health and wellbeing of children and young people (Scottish Government, 2020c) and sharing of early findings about the experiences of children and young people to inform such

support, for example, findings from the Mental Health Foundation (Children's Parliament, 2020) about the worry and loneliness felt by many children who were unable to play or mix directly with peers for many months. The Children and Young People's Strategic Partnership (2020) in Northern Ireland highlighted the particularity of the context in Northern Ireland, its recent history of conflict, and the need to understand the impacts of the pandemic on Northern Ireland as a traumatised society.

563. All four jurisdictions now predict a fall in learner numbers over the next five years of around 6-8%, which Sibieta (2023) suggests may assist schools in their recovery, though he also cautions that, "*falling pupil rolls can create budgetary problems if costs do not fall in line with pupil numbers*" (2023, p. 3).

6.2 Assessment of effectiveness of mitigations

564. Reviews to assess the effectiveness of such interventions were common in the first months of the pandemic but there is less longitudinal research and fewer reviews and evaluations looking back over the pandemic and its aftermath as a whole. Most reviews focused on formal learning loss and recovery rather than, for example, home-school relations, or personal and social development. That said, the reviews which were undertaken offer some useful insights and reflections.

565. In England, a national review assessed the impacts and interventions, noting extensive use of the National Tutoring Programme (NTP) as well as small group and one to one support (Crossfield *et al.*, 2023). It noted that, of the 33 NTP providers, 26 were equipped to support students with special needs, and 17 of these could support children in special school settings. The online tuition programme was seen as particularly helpful for learners with special needs as they benefited from the one-to-one format where they were less likely to be distracted by their peers. The one-to-one format helped the majority of learners to focus and enabled the tuition to be closely tailored to their learning needs (Marshall *et al.*, 2021). The National Audit Office reported that 47% of the children who received school-led tutoring in 20221/22 were from disadvantaged families (National Audit Office, 2023).

566. Rose *et al.,* (2024) note that efforts within schools to support learners through small group work and one to one support appear to have been successful. However, their data also repeatedly draws attention to a lack of success in tackling the disadvantage gap, and a concern about some very low attainment across schools, an issue which prevails across the UK.

567. Interestingly, Baird *et al.* (2025) note a particular emphasis in England which was not as strong elsewhere.

> "*Unlike in Scotland and Wales, the English Government's response to learning loss in the pandemic was to get back to assessment as normal, as soon as possible; arguing that examinations are the fairest way to assess…*" (Baird *et al.*, 2025, p. 11).

568. This less holistic view of 'catch-up' was also critiqued by Elliot Major *et al.* (2024) in their international review of post-pandemic learning progress;

> "*Compared with most other nations, England's pandemic response was heavily focused on academic catch-up with less emphasis on socio-emotional skills, extracurricular support, and wellbeing. Our results suggest that to improve child outcomes, much greater emphasis is needed in schools on activities that improve both socio-emotional and cognitive skills*" (Elliot-Major *et al.*, 2024, p. 3).

569. The evidence report to the Scottish Covid-19 Public Inquiry (McCluskey, Fyfe, *et al.*, 2023b) on educational impacts of the pandemic, provides a summary of the outstanding challenges and questions in Scotland, but which are applicable across the UK, in light of the findings from the body of evidence reviewed for this report. These challenges relate to:

569.1. Impact of anxiety and uncertainty surrounding exam cancellations;

569.2. Impact of high stakes assessment overall on children's mental health and wellbeing;

569.3. Patterns and trends in school attendance and engagement;

569.4. Impact of the pandemic on children who require additional support to flourish;

569.5. The need for direct participation of children and young people in decision-making processes related to future planning;

569.6. Longer-term impacts on the engagement and learning of the generality of children across all stages of education;

569.7. The experiences in, and outcomes from, education across all stages for children from minority and disadvantaged groups and communities with pre-existing and intersecting vulnerabilities;

569.8. The extent to which Covid-19 may have created 'new disadvantage' across all four jurisdictions, in addition to the known exacerbation of existing vulnerabilities and disadvantage;

569.9. Staff wellbeing overall, and differential impacts on some groups of staff working across education, including women;

569.10. The role for the youth work sector as an educational partner in meeting the learning and development needs of children in a post-Covid-19 society.

(adapted from McCluskey et al., (2023b).

6.3. Conclusions

570. There are limitations to what can be said about impacts of the pandemic, and how these can be addressed at this point and it is important to reiterate these limitations here to ensure clarity. Firstly, the pandemic is still very recent in educational terms and therefore any assessment can only be preliminary and tentative at this point. Secondly, the number of empirical studies which provide evidence of educational impacts from Covid-19 has declined significantly since the intensity of work undertaken during the early part of the pandemic. Thirdly, funding for educational research in the UK continues to be much lower overall than, for example, medical research, and the number of high-quality large-scale studies is much smaller; a rare exception being the Covid Social Mobility and Opportunities (COSMO) study referred to throughout this report. Unless research funding increases substantially, this will a) severely hamper a full understanding of experiences and outcomes for learners, b) severely limit lessons to be learned from the experience of the pandemic in the medium to long term and, c) leave the UK ill-prepared for future crises on this scale. This said, there are clear and urgent questions that arise from the body of knowledge gathered thus far, and it is not only valid but vital that this knowledge is now used to inform recommendations.

571. Schools occupy a unique place in our society. They provide a universal service which, despite its challenges, remains the single best means available to improve life chances for children, post-pandemic, across the UK. All efforts focused on recovery must recognise first the dedication, ingenuity, and above all, care, which staff in schools brought to their work, but also the costs of doing so in a 'stressed system', which was already under severe and unsustainable strain before the pandemic struck.

572. The evidence summarised throughout this Report suggests that policymakers should ensure that schools have the appropriate resources to ensure learning recovery in terms of academic attainment, but also the wider support needed to rebuild skills which underpin positive personal and social relationships and wellbeing, attendance, relationships and behaviour. This is vital for all learners. Catch-up support seems to be having some effect, but funding has not adequately compensated for the effects of severe financial constraints on the education sector over recent years or any long-term effects of the pandemic. Focus must also be maintained on very low-attaining learners and closing the disadvantage gap. The UK is unusual among the rich countries of the world in having a 'long tail of underachievement'; it has a larger gap in attainment between the highest and lowest achievers and sees a stronger association between household income and outcomes than in other similar countries. This results in relatively low functional literacy and numeracy levels in the adult population. Research has consistently demonstrated that the most effective educational initiatives and interventions are those which are holistic, universal and preventative. It is therefore essential that schools as a public service are adequately funded and staff well supported, including for issues wider than academic learning, to ensure that children have the best possible support for the long-term. Calls for a long-term recovery plan reflect the fact that the full impacts of the pandemic itself are likely to be long-term and any under-estimation of issues could lead to greater costs to society, economically and socially, in years to come.

573. Planning must be proactive and co-ordinated at UK, jurisdictional, local authority and school levels. The experience and expertise of families and young people should be at the heart of future-focused planning. Although there are notable gaps in data, much is already known about what works well, and in which circumstances, and with which children. At least part of the change needed is a reinvigorated and concrete political and policy commitment to applying lessons learned from the existing and large knowledge base, including from teachers and support staff. This body of knowledge highlights the enduring negative effects of disadvantage on life chances but also the difference that schools can make where there is strong leadership; shared values and principles which are enacted and modelled in ways that staff and children can see and learn from; a restorative and structured approach to challenges and conflict; a focus on high academic expectations; and good home-school relations.

574. The advance of technology and AI in schools and society will shape responses to any future pandemic. Marshall *et al.,* (2021) suggest that to future-proof delivery in

the case of local lockdowns and school closures, providers could consider a hybrid model that combines home-based and school-based delivery and meets families' needs. However, access to devices and reliable internet connections were key barriers to participation of the Online tutoring pilot, particularly for home-based learners and thus policy makers should continue to invest in internet provision and devices for schools and for learners at home as well as invest in training for staff on how to provide high quality hybrid teaching.

575. During future events, where schools may be required to close, there needs to be a plan to ensure clear and consistent communication about which children are eligible to go to school and how support can be accessed. Families and schools fared better where they had access to experts and specialist support, especially those providing mental health care and educational support services for learners with special needs (Sideropoulos *et al.*, 2022) while recognising that telehealth support cannot fully replace face-to-face services. Increased fiscal commitment will be necessary but there are also many no-cost or low-cost policy initiatives that could be expanded. Advice, for example, about what works for students with special needs should be sign-posted in a single, trusted location that both teachers and parents can easily access (Antalek *et al.*, 2024). Support should include out-of-hours support when breakdowns are more likely to happen. To avoid more children reaching crisis point, more investment is required in building school-parent relationships for students with special needs (Hamid *et al.*, in progress) as well as stronger school networks so that schools can support each other in relation to special needs (Crane *et al.*, 2021). Providing clearer information about the measures taken in school to protect children and support available in schools will encourage more families to send their child to schools where it will be easier for them to access learning.

576. The mental health and wellbeing needs of the entire school community following unplanned events, including learners with special needs, must be central to all aspects of planning. It is also essential to recognise that school closures may increase risks for some children experiencing neglect or abuse at home and for whom school attendance, and access to support through school, provides safety.

6.4. Recommendations

577. Final recommendations arising from the conclusions set out above flow from the evidence reviewed throughout this report. These recommendations reflect the need to provide much better protection for children's education in the event of a future

pandemic. They are premised on a need for honesty about the scale of the current crisis in schools, and call for much greater investment and commitment in four key areas: front-line education *per se*; harmonised approaches to decision-making; research to aid planning; and, finally, but crucially; development of a clear and detailed plan for schooling in the event of any future pandemic. These are outlined in more detail below.

578. **A comprehensive plan for schooling in the event of a future pandemic which prioritises routine, structure and resilience**; framed by commitment to:

578.1. Regular formal and informal home-school communication;

578.2. Contact tracing which allows for targeted school closures and re-openings;

578.3. A flexible approach to school closures, taking account of local health conditions and information, as part of a containment approach;

578.4. Allow use of 'bubbles' for very vulnerable learners and families so they can be more supported;

578.5. Development of resources and toolkits to support families to establish new routines and manage anxiety about disruptions to schooling;

578.6. Re-opening of schools when community transmission of the virus is minimal;

578.7. Re-opening which adopts a phased approach that prioritises learners at lower risk of infection and transmission, and bases decisions on considerations for physical health and wellbeing over exam preparation and assessments;

578.8. Clear information about mitigations including the use of face masks, self-isolation for infected or symptomatic children and staff, and physical distancing;

578.9. Additional care and flexibility for children and staff in high-risk groups or with family members in high-risk groups, to ensure they can participate fully and address their often heightened concerns around re-opening;

578.10. Sustainable interventions to address inequitable access to, and support in using, technology;

578.11. Targeted alternatives to online learning for groups where online learning might not be possible or appropriate;

578.12. Recognition that over-reliance on online learning may be detrimental for some children with special needs and some learners whose home language differs from the language of instruction.

579. **Direct investment in front-line education,** taking account of the need for:

579.1. Education recovery which includes, but also goes beyond, a focus on attainment;

579.2. Support for all learners, in all types of educational setting;

579.3. Inequalities in school experience and outcomes;

579.4. Children with special needs;

579.5. Teacher and headteacher recruitment and retention;

579.6. Staff training and support;

579.7. Staff working conditions;

579.8. Physical and digital infrastructure, maintenance and safety of school environments;

579.9. Inspection and quality assurance regimes which are experienced within schools as supportive, and which place equal value on the formal curriculum, and the health and wellbeing/personal/social aspects of learning;

579.10. A systematic approach to inter-professional and partnership working.

580. **An evidence-based approach to decision-making, harmonised across the UK** to:

580.1. Increase comparability and reliability of shared data-informed decisions and commitment to greater data transparency, including making data openly available for further analyses;

580.2. Ensure all four UK jurisdictions commit to investment in participation in a full range of international studies of attainment, including Trends in International Mathematics and Science Study (TIMSS); Progress in International Reading Literacy Study (PIRLS), as well as continuing current commitment to the Programme of International Student Assessment (PISA);

580.3. Apply lessons from existing bodies of knowledge on the negative and enduring effects of poverty, inequalities, school non-attendance, and school exclusion;

580.4. Increase participation of learners and their families in decision-making about issues that affect them directly.

581. **Commitment to increased and long-term investment in longitudinal research** to understand and address:

581.1. The impact of Covid-19 on mental health and wellbeing of all learners, but especially those who were at critical points of transition during the pandemic, e.g., young children moving into primary education, those leaving secondary school;

581.2. Impacts of Covid-related secondary traumatic stress on all school staff;

581.3. Potential for expansion of promising initiatives developed since 2020, including personal budgets for families of learners with special needs e.g. https://www.gov.uk/children-with-special-educational-needs/extra-SEN-help;

581.4. Potential for expansion of relevant research being undertaken in one UK jurisdiction to all jurisdictions, e.g. 'The Five to Twelve Study', 'The Children of the 2020s', both funded by the Department for Education; but ensuring disadvantaged groups, including those with Long Covid and special needs can be tracked within these data samples;

581.5. Differential impacts of Covid-19 on children from disadvantaged groups and communities;

581.6. Drivers of poor outcomes for disadvantaged learners, and those with special needs, including a focus on attendance and wellbeing;

581.7. The post-pandemic increase in school absence rates across the UK, and disparities in attendance rates among groups of learners identified as vulnerable or at risk of under-achievement;

581.8. The longstanding issues for learners at risk of very low attainment;

581.9. The need to incorporate the views and experiences of learners into research which informs policy in education.

6.5 Summary

582. The rapidity and suddenness of the onset of the pandemic led to an unprecedented level of research in education, examining the changes to policy and practice in terms of teaching and learning, curricula, assessment and attendance, as well as wider impacts on learners and their families. This body of research has contracted almost as sharply as it grew back in 2020, and there now seems to be what might best be described as a 'public forgetting' of the fear, uncertainty and trauma wrought by the pandemic. This has translated into reduced policy attention and reduced funding to aid recovery. In our view, unless this is reversed, it sows the seeds for potentially calamitous long-term effects on a generation of children. Given all that is already known about the impacts on all children, but particularly for those who were already struggling to maintain engagement and reach their potential, it is vital that lessons are learned and purposeful action is urgently taken.

583. As the UK emerges from the immediate aftermath of the pandemic, it is clear that many of the issues facing education are common across all four jurisdictions, and that Covid-19 served to highlight, but in some cases, also exacerbate the challenges for learners and the schools seeking to support them. As a population, children experienced, and continue to experience, harmful impacts, and a step-change is needed to ensure that their educational journeys and pathways are much better supported. But the burden of Covid-19 did not fall evenly on all learners. The gathering body of evidence reinforces concerns which first emerged in the earliest months of lockdown, that the children who have long faced the greatest barriers to learning are now even more likely to miss out on educational success. Poverty has been, and remains, the single most common determinant of these barriers. Those living in poverty are more likely to have special educational needs and socio economic hardship increases the likelihood of disengagement from school, of non-attendance and formal disciplinary exclusion; all of which in turn act as barriers to educational achievement. Schooling provides a uniquely powerful point of intervention through which to tackle the impact of poverty and inequalities more generally. Unless the crisis in education, now deepened further by Covid-19, is tackled urgently, schools will be unprepared for any future pandemic, with long-lasting social and economic consequences.

Glossary

Assessment - an ongoing process of gathering, structuring and taking a holistic approach to making sense of information about a learner, and their circumstances, in order to inform decisions about the actions.

Attainment gap - the disparity in academic achievement between different groups of children the same age, often based on socio-economic status, ethnicity, or other characteristics. It highlights inequalities in educational outcomes.

Blended learning - an approach to teaching and learning that combines in-person and online experiences. It involves integrating digital tools and activities with traditional classroom methods.

Care experienced - an umbrella term which can mean children / young people who have been or may be currently 'looked after' at home under a legal order, or 'looked after' away from home in a residential children's house, in a foster placement or in a kinship placement. Sometimes the term 'in care' is preferred. Unlike the term 'looked after', 'care experienced' has no statutory basis.

Child's Plan - a single or multi-agency plan which outlines a learner's wellbeing needs and how they are to be supported; a single planning framework which can incorporate plans that are required under other legislation; required only when identified wellbeing needs cannot be met without one or more targeted intervention. Applicable in Scotland only.

Co-ordinated Support Plan (CSP) - a statutory plan to ensure provision of services for learners, whose additional support needs arise from complex or multiple factors, which have a significant effect on their education and are likely to last at least a year, and require support by a local authority and at least one other non education service. Applicable in Scotland only.

COSMO - The Covid Social Mobility and Opportunities study. https://cosmostudy.uk/

Digital divide - the gap between people in society who have full access to digital skills and technologies (such as the internet and computers) and those who do not.

Disadvantage gap - the disparity in educational experience and outcomes (including but not limited to academic attainment) between learners living in the most deprived and least deprived circumstances. Note: the four jurisdictions measure and report the poverty-related attainment gap differently and therefore data is not directly comparable

Education, Health and Care Plan (EHCP) - a legally binding document that outlines plans for supporting a child or young person's (up to age 25) special educational, health, and social care needs, as well as the support they need to meet those needs and achieve their goals, where these needs go beyond the support typically available in schools. Applicable only in England.

Holistic - addresses the whole child and his/her circumstances, rather than focusing on specific isolated aspects. An approach that considers the whole range of needs that influence a child's healthy development and well-being.

Learner - any child in any educational setting, whether in mainstream school, specialised or alternative settings, or learning at home. It includes all children from age 4-18 and also those up to age 25, where the young person is a care leaver, or is in the custody of the state.

Learning platform - an integrated set of interactive online services that provide teachers, learners, parents and others involved in education with information, tools and resources to support and enhance educational delivery and management.

Looked after – a child in the care and supervision of their local authority (or Trust in Northern Ireland), sometimes referred to as a 'corporate parent'.

Pedagogy - the method and practice of teaching, including teaching approaches, theories, feedback and assessment.

Programme for International Student Assessment (PISA) - assessments conducted every three years since 2000 by the Organisation for Economic Co-operation and Development (OECD), with the latest implementation in 2022 collecting student results after the school closures caused by the Covid-19 pandemic. Overall, the data explored in this study represent 175 million 15-year-old students in 72 countries. All jurisdictions in the UK participate in PISA, making it one of very few points of comparison available across the UK.

Special needs - refers to children who may need additional help with learning because of a difficulty or disability, in order to fulfil their full learning potential. In England, 'special educational needs and disabilities' (SEND) is the official term. In Northern Ireland, the term 'special educational needs' (SEN) is preferred, while Scotland uses 'additional support needs' (ASN) and Wales, 'additional learning needs' (ALN). Definitions and parameters of need are different in the four jurisdictions and the terms are therefore not interchangeable. Throughout this report, the term 'special needs' is preferred. Whilst recognising that it is an over-simplification of a complex area of education, it also acknowledges that each of the four

jurisdictions has developed its own statutory and policy framework to meet need and support children who face barriers to learning.

Staged intervention - A structured process used to identify the level of support required to meet the needs of an individual learner. Models may vary but generally have 3-5 stages. As learners progress they may move between stages.

Support plan - A plan which sets out timescales, responsibilities and services required to meet a learner's assessed needs. Plans can be referred to as Wellbeing, Behaviour, or Personal Learning plans, Risk Assessment Plan, Child's Plan or Coordinated Support Plan (CSP). A Child's Plan or CSP are defined by legislation. Other plans are developed by local authorities for specific purposes. Applicable in Scotland only.

The Teaching & Learning International Survey (TALIS) - A five-yearly international, large-scale survey of teachers, school leaders and the learning environment in schools, administered by the Organisation for Economic Co-operation and Development (OECD).

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Annex 1: References

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Annex 2: Inquiry documents

Document	INQ
Taylor-Robinson, D., Child health inequalities	INQ000280060
Davies, C., & La Valle, I., Little Lives, Big Changes: How Covid-19 shaped early years services and children's development from birth to five years	INQ000587957
Newlove-Delgado, T., & Creswell, C. The impact of the pandemic on the mental health and wellbeing of children and young people	INQ000587958
Segal, T., & Whittaker, E., Long Covid in children and young people	INQ000587960