Attainment and disadvantage in Scotland’s schools: what may the impact of lockdown be?

Research and Policy Briefing

Barry Black, postgraduate researcher, University of Glasgow School of Social and Political Sciences
b.black.1@research.gla.ac.uk

This research briefing considers what impact the public health measures taken schools in Scotland as a result of the Covid-19 pandemic will have on the poverty-related attainment gap.

It is not a comprehensive literature review: rather, it considers the Scottish policy response, international evidence of the impact of home-learning before and during the lockdown and discusses some possible solutions to mitigate the impacts.

1. Schools in lockdown

On Friday 20th March, primary school and secondary school campuses in Scotland were closed for learning as normal due to the Covid-19 pandemic.1 It was said at that time it was likely schools may be shut until after summer, signalling the longest period of school closure in living memory.2 This reality was confirmed on 21st May, when it was announced that 11th August would be the expected re-opening date for campuses.3

The closures have impacted upon 690,857 pupils in Scotland – 398,794 in primary schools and 292,063 in secondary schools.4 This impact is of course also being felt by their families, carers and over 51,000 teaching staff (not including support, officials and administrative staff).5

Scotland is of course not alone in facing this level of disruption to its education system. UNESCO estimate that at least 1.5 billion ‘learners’ across 188 countries have faced disruption – 91.3% of enrolled school students globally.6

Importantly, school campuses in Scotland have not ‘closed’ and learning is ongoing (for the majority of pupils this is at home). Campuses have remained open for children of essential key workers and those young people deemed ‘vulnerable’. In early April the Scottish Government estimated that around 97,000 would be deemed vulnerable – about 10% of the 0-17 population.7 However, data from the last week of April showed that 6,060 – less than 1% of all pupils – attended these hubs.8 The vast majority of pupils were children not in the vulnerable category but rather from those of key workers, leading to calls from the Scottish Parliament Education and Skills Committee and the Children and Young People Commissioner to increase uptake.9,10 Numbers did increase from this point however, and on the 14th May it was reported that 7094 young people attended the hubs – 5,034 the children of key workers and 2058 classed as vulnerable.11 Other supports for disadvantaged young people continued to respond to school closures, particularly regarding food provision. Around 168,000 free ‘school’ meals were being provided daily by local authorities (122,000 were entitled to free school meals) – largely through direct cash payments and the provision of vouchers to families.
Crucially, while campuses have closed for most, learning has continued. Learning in the short term has moved wholly online. In a University of Glasgow survey of over 700 teachers, nearly 90% of respondents confirmed they have continued to teach classes online and 40.6% have been teaching in hubs – meaning that a large number are balancing both roles.\(^\text{12}\)

It is clear the Scottish Government has reason to believe that school closures have had an impact in slowing the spread of Covid-19 transmission. Attention has now turned to how schools can safely re-open. From August 11\(^\text{th}\), if public health evidence allows, it is expected schools will re-open in a phased manner but the government has stated that there cannot be a ‘one size fits all’ approach for all schools.

Decisions on how this is done will be led by the Scottish Government’s Education Recovery Group.\(^\text{13}\) This will be done via a blend of online and in-school learning – formally integrating online learning into the curriculum and creating a ‘dual’ provision of in-class and supported learning at home.\(^\text{14}\) This means that a significant section of the formal curriculum will be delivered in an online, home-learning environment. This model will also include reduced class sizes, staggered timetables and social distancing measures on school campuses. Part of this will involve ‘expanding’ the school estate by using community facilities or empty business premises. Pupils in critical transition periods may get classroom time in June if it is safe to do so, and some local authorities have begun to confirm these arrangements.\(^\text{15}\)

Perhaps the key constituency of pupils impacted are those in the senior phase (S4-6) who were due to sit exams. The Scottish Qualifications Authority took the decision to cancel exams and other forms of assessment and instead will utilise the judgement of teachers on predicted grades of students.\(^\text{16}\) These predicted grades will be based on a ‘holistic’ view of a pupil’s performance throughout the academic year. These predictions will then go through a moderation exercise. This exercise has caused a large amount of controversy because it will use results of previous cohorts at a school to adjust grades – potentially to the detriment of those at low-attaining (and overwhelmingly more likely to be deprived) schools.\(^\text{17}\)

The issue of predicted grades and SQA is one of the key issues of the lockdown and its impact on education and is beyond the scope of this briefing. However, for background commentary on the issue please see TES’ response to this controversy.\(^\text{18}\)

2. The attainment gap in Scotland

The Scottish Government has recognised that school campuses being closed has had an impact on the attainment of all young people and in increasing the attainment gap between the richest and poorest students:

‘We know that school closures are having a negative effect on many aspects of children’s progress and development, including their wellbeing. This will be particularly so for some of our most disadvantaged young people (pg. 13).’\(^\text{19}\)

Before assessing the possible impacts of the lockdown on this, however, it is worth outlining the current situation in Scotland with regards to attainment – both of ‘formal’ qualifications and curriculum levels.

Attainment in Scotland since 2010
Scotland has a stubborn poverty-related attainment gap. The issue has led to a significant politicisation of education in the country, spurred-in-part by the First Minster’s statement in 2016 that closing the attainment gap would be her Government’s ‘defining mission’.20

Formal attainment has remained broadly consistent since 2010 when the Curriculum for Excellence (CfE) was introduced. This is particularly true when considering the proportion of young people who leave school with at least one Higher or equivalent qualification – 38.2% then compared to 41.4% now.21 Research shows that there is however staggering inequality within these attainment figures. The pupils who live in the most deprived 20% percent of communities are just as likely to leave school with one Higher as the pupils in the least deprived 20% are to leave with five.22

While these figures account for young people at the point they leave school (i.e. a young person could gain a Higher in S5 but not be counted in these figures until the leave school in S6), the yearly Higher pass rate has been declining for each of the past four years. It is now at 74.8%, compared to 79.2% when the new Higher qualifications were first introduced in 2015. Large socio-economic inequalities exist within these pass rates.23

We can consider these figures of ‘formal’ attainment as the outcome of the role of socio-economic disadvantage in education, but the foundation of these effects can be measured earlier in schooling. The CFÉ measures the achievement of reading, writing, listening & talking (combined as ‘literacy’) and numeracy of each pupil at four points throughout schooling – P1, P3, P7 and S3 show significant gaps in achieving expected levels at all stages and in all areas between pupils who live in more and less deprived communities. The gap generally increases at every stage of primary school before closing slightly in S3.24

The two charts here are taken from the Scottish Government’s most recent data release (2018/2019) of Achievement of Curriculum for Excellence levels, which shows a social gradient in attainment for both literacy and numeracy in primary and secondary pupils. In both charts, pupils will on average perform better than those ‘below’ them on the deprivation scale and worse than those ‘above’.

![Chart 4: Percentage of P1, P4 and P7 pupils (combined) achieving expected Level in Literacy and Numeracy by SIMD, 2016/17 to 2018/19](policyscotland.gla.ac.uk)
Despite an intense policy focus on tackling these inequalities over recent years, the gaps have remained broadly consistent for some time now.\textsuperscript{25} These inequalities in literacy and numeracy among younger children are the foundation for the attainment gap in qualifications seen in older pupils; qualification gaps that are a consistent concern for larger economic and productivity policy aims. Again, these inequalities in education are a product of wider socio-economic inequality: inequality that is already proving to be exacerbated by the COVID-19 pandemic and resulting economic crisis.

\textbf{An important question for policymakers emerges: Will the public health measures implemented to stem the transmission of the virus (outlined in section one) negatively impact on the existing educational inequalities among Scottish pupils (outlined in section two)?}

\textbf{3. Learning loss}

Before considering the limited research published concerning the impacts of the lockdown, it is worth briefly considering some of what is known about how learning outwith the classroom impacts upon the attainment gap. It goes without saying that the current lockdown is an unprecedented situation.

The scale and reach of current disruption mean that drawing conclusions from research done during other periods should be treated with caution – quite simply, there has never been a comparable period in recent history. However, there are situations where the knowledge we have built can help us understand some of the key issues – and even solutions – to the current difficulties.

\textbf{Evidence on the impact of summer holidays}

One of these situations is the impact of the summer holidays – typically the longest period in the year that young people spend away from the classroom. Clearly however, no ‘formal’ learning in the form of curriculum delivery is expected during the summer break, unlike during the current lockdown. There is a growing, but still under-explored, body of research in relation to the impact of the summer holidays, particularly on the most disadvantaged young people.

A study carried out in Baltimore, USA, found that although cumulative gains in achievement over the first nine years of school reflected learning during the school year, the socio-economic gap could be tracked to the different experiences of summer learning. The research found that while the reading skills of the richest pupils increased over the summer break, the poorest students lost ground.\textsuperscript{26} Another US study found that while the attainment gap is \textit{already} present by the time children begin school, the socio-economic gap grows at a faster rate during the summer when compared to the school year. The authors conclude that schools can be ‘equalisers’.\textsuperscript{27}

Closer to home, University of Glasgow research into the ‘cost’ of the school holidays for disadvantaged young children found that issues such as food insecurity and limited access to enrichment activities...
over the period can cause stagnation or decline in the health, wellbeing and learning of these young people. It found:

‘Evidence for summer learning loss shows that during term-time, children across all income groups learn basic skills at similar rates; however, during the summer months, children from low-income families fall weeks or months behind their middle- and high-income peers (pg. 518)’.  

A 2014 survey of around one thousand schools in England found that 77% of primary school senior managers and 60% of secondary school leaders had concern about their pupils and ‘summer learning loss’. Dubbed ‘The Summer Slide’, such research highlights the role that the home learning environment, parental education attainment and access to resources has on educational development. The evidence has even led some to make a ‘case against summer vacation’.

4. Lockdown

The understanding developed by research into situations like the summer holidays can give us some insight into how the lockdown may be impacting the attainment of young people from different backgrounds. As mentioned however, the unprecedented nature of the current situation brings with it important caveats from applying such learning directly:

- At-home learning and the development of learning during breaks is normally an exercise in complementing learning in the classroom, rather than a replacement for it.

- Families of all socio-economic groups are facing disruption to children’s schooling alongside changes to wider family work and structures. This means that parents are often having to provide schooling and childcare while fulfilling their own employment responsibilities, which is vitally different from planned school breaks. This was an issue identified by Connect – Scotland’s national parent council – who conducted a survey of 1,500 parents in Scotland.

- The wider mental and physical health impacts of living through the uncertainty of pandemic cannot be an ideal situation for proficient learning to continue, although research on this issue is ongoing.

Views of young people

The most important stakeholders in all of this are the young people themselves. A joint survey by The Scottish Youth Parliament, YouthLink Scotland and YoungScot sought the views of nearly 2,500 young people aged 11-25 on the impact of Covid-19 on them, to date, it is the most comprehensive survey of its type. The majority of participants were aged between 13 and 17. There is also a skew towards rural responses when compared to the general population.

The survey found that 64% were ‘somewhat’ or ‘extremely’ concerned about their place of education being closed. 67% felt the same about the impact on coursework or exams. Further, when participants were asked to freely type the key issues they were concerned about, nearly a quarter noted ‘educational impacts’. This was the top theme of 25 the survey identified.

Similarly, ‘topics around education’ was the top area noted that young people would like more information on, believing that politicians and teachers should be providing information generally.
surrounding the pandemic. Ensuring that information is clear, honest and reliable and improving the current impact on education were the top two actions participants noted they wanted from decision makers.

Of note was the finding that 82% were ‘somewhat’ or ‘extremely concerned’ about the impact of Covid-19 on the future. 47% percent felt this way about their physical wellbeing, while the figure was 57% for mental wellbeing.

**Access to the virtual classroom**

There is a recognition that the education system, and indeed families and young people, have worked under impossible circumstances to make the best out of the situation in the short-term. As learning has moved online, there has rightly been a focus on those young people who lack access to online resources.

There is a small but growing bank of real-time evidence of how learning-at-home is operating in practice during the lockdown. While the majority of it has been conducted in England, it is worth considering both in terms of how lockdown may have impacted on attainment and what needs to be done to ensure that the ‘new normal’ coming in August is equitable.

The most obvious and pressing short-term issue in relation to learning-at-home is digital access. This is both in terms of technology - such as devices - and internet connection. There has been a sustained effort since the dawning of the lockdown to ensure such resources are available to those who need them. The Scottish Government has announced £9 million to provide up to 25,000 laptops, part of a wider £30 million effort to support digital learning.35

While the effort to ensure the distribution of resources is being led at a local authority and school level, the exact number of pupils who are without such access at a national level in Scotland is not known. A survey by the EIS teaching union found that 64% of the 26,000 of their members who responded identified lack of access to technology as a ‘key barrier’ for pupils learning at home. The General Secretary of the Union commented:

‘Looking ahead to when schools reopen, there is an even more pressing need than normal to address the impact of poverty on children’s education’. 36

Particularly given that Scotland is to move to online learning being fully integrated into the curriculum, it is of some concern the numbers accessing online learning is not known, nor their geography or demographics.

A survey of 4,000 parents of under-15s in England by the Institute for Fiscal Studies (IFS) found that 14% of the most deprived fifth of pupils in secondary school either use a phone to access schoolwork or have no device at all. For the least deprived fifth, the figure, perhaps surprisingly, was 10%. In primary schools however, the inequality in access between richest and poorest was stark, with three times as many pupils using a phone or having no access at all compared to their most affluent peers.37

The Sutton Trust, in a survey of teachers in England, found that 15% of teachers in the most deprived schools reported that more than a third of their students did not have access to the technology needed for online learning, compared to just two per cent of teachers in the most affluent schools. Similar numbers in the most deprived schools noted that more than a third of their pupils did not have the internet access needed.38
In the medium- to long-term, as online learning becomes a formal part of the curriculum and a reality of everyday schooling, there must be parity of access. Being able access online learning will become as important as being able to access the classroom.

This evidence highlights, to at least some degree, that there is inequality in access to the online curriculum. While it is understood that this gap has emerged at short notice and in difficult circumstances, it is clear it must be fully addressed before schools return in August.

Online learning

While the availability of technology to all is critically important, and the difficulty and logistics of the effort to address it should not be underestimated, this is simply the basic requirement for accessing online resources. Far more important is to provide support to pupils so they can use these resources in a way that is meaningful, and thereby be successful in integrating online learning in the curriculum. Universal and high quality support for on-line learning will have the biggest impact on attainment and the poverty-related attainment gap. It is also the hardest challenge to overcome. **In short, providing a young person who does not have one with a laptop is important, but it will not automatically make online-learning successful.**

Home learning environment

The home learning environment is a key variable in lockdown’s impact on attainment. Issues such as resource, time and space are core elements in learning at home. Generational issues such as parental educational attainment – long understood as a predictor of pupils’ success in education – become an even more important factor in day-to-day learning.

The IFS study found that pupils were spending roughly five hours per day on home learning. This was significantly related to family income. Children of the richest families were spending 5.8 hours compared to 3.5 hours for the least well off – a 30% difference. The report notes that over 34 days, this amounts to a difference of seven full days of learning. The Sutton Trust study found similar differences, with 44% of ‘middle class’ pupils reporting spending more than four hours a day of schoolwork compared to 33% in ‘working class’ families.

These differences are borne out in the data from the IFS on which groups of pupils are engaging virtually with their schools. In secondary schools, the IFS found a twenty-point percentage gap between the richest and the poorest pupils in submitting completed work on-line.

According to the Sutton Trust, better-off students also have access to far more resources from their schools for supporting learning. It found a 15 percentage point gap between the richest and poorest in the likelihood that their school offered resources like video chats, text facilities and live classes. It is important to note however these issues of curriculum provision are much more directly aligned to governance of schools, which is perhaps of less relevance in application to Scottish schools. However, according to the Connect survey, 40% of parents with children in Scottish schools reported finding schoolwork themselves rather than through communication from the school, though there is no socio-economic breakdown.

Teachers in Scotland, through the EIS survey, also report that pupils’ participation in learning has been a barrier to delivering home learning. Vitally, around a fifth of respondents noted that their own internet access was an issue also – showing that it is not just pupils who are impacted by digital access.
Clear inequalities have also been found in access to study space. The most deprived pupils are twice as likely as the most affluent to have access to their own workspace. The issue is more acute at primary school age, where lack of working space is also an issue for young people in ‘middle’ income families.

In a University of Glasgow study of teachers, those in high attaining schools were more likely than those in low attaining schools to report that their students are engaging well with online learning during lockdown, that they are confident students will continue to engage as lockdown continues and that parents of their pupils would have the time and understanding to support learning.

Importantly, the EIS survey found that school staff believe only 11% of children with additional support needs were having their needs met and that there is a real issue for parents who do not speak English in accessing online activities. Such findings show the plethora of ways disadvantage may impact learning in the future beyond socioeconomic status.

**Parental attainment**

The First Minister has recognised and thanked the work of parents during the lockdown. As parents have had to take a more hands-on approach to their children’s education than would have ever been reasonably expected, the level of attainment parents have is arguably a key influence on the success, or otherwise, of home-learning. Indeed, the level of parental education is a key factor in learning loss during summer holidays, and it is a key predictor of success at school – a consistent finding over decades of research.

It is also the case that parental (or family) income is closely related to parental attainment. Evidence from schooling before the current crisis shows that higher income students in secondary school gain more knowledge from homework in nearly all subjects at all levels. The Sutton Trust research found a direct social gradient in how confident parents were with directing and supporting learning during the lockdown. Over 75% of those with a Masters degree were confident and this percentage decreased as the formal level of qualifications did – 60% of those with an undergraduate degree and less than half for those with A-level or lower were confident in supporting learning at home. Although there was little difference in the level of actual parental supervision given to pupils, the richest pupils are far more likely to have a private tutor.

The IFS found that parents across the income spectrum are finding it hard to support learning. Well over half of parents with children at primary school noted that they were having difficulties while just under half of secondary school parents did. There were socio-economic differences present but it was middle-income parents who were finding it most difficult. The report suggests that this could be due to the likelihood that middle income families were more likely to be working from home than lower income parents and have fewer learning resources than the most well off; squeezed by the requirements of both their own employment at home and the expectation of home learning support. This finding highlights how the context of COVID-19 – both in school and work requirements for parents – is different to the impact of the summer break.

Connect asked parents in Scotland on a scale of 1-4 (not to very) how confident they were in supporting their young person’s learning. A quarter reported being very confident and 9% were not confident, with a mean score of 2.80. Parents were more confident with supporting health and wellbeing (one of Scotland’s three key curriculum areas) than they were literacy and numeracy.

As mentioned, schools return in August to a ‘new normal’ that will not reflect what has ever been perceived as normal schooling before. The EIS has called the move to a dual online/in-class model as
‘the biggest curriculum challenge of the century’. It is hard to disagree that it is the biggest change in our system since the Curriculum for Excellence itself.

Potential impacts of Covid-19 on attainment

While the research currently published is by no means comprehensive, it is clear that planning must be made for simultaneous potential outcomes in Scotland.

- It is likely that the overall pace of attainment will have slowed during this period compared to if schools had been able to operate as normal.

- The attainment of the most disadvantaged young people will be depressed more acutely due to an exacerbated version of ‘summer learning loss’. In short, schools will return in August with even larger poverty-related attainment gaps.

- The poverty-related attainment gap will likely grow at a larger rate over the 2020/21 academic term than would be usual in a ‘normal’ year of schooling, due to the switch to integrated online learning and the challenges this presents for the provision of technology and support for learning.

Solutions

Given the scale of the challenge, it is prudent to consider some of the possible solutions that have been discussed that may mitigate the impact of the current situation on the attainment gap.

Mitigating impacts of access

As part of the curriculum will be formally on-line and supported at home, it is vital there is equal access to the ‘virtual classroom’. This is not just in terms of socio-economics but place as well. If the infrastructure for the online curriculum is the responsibility of individual schools or even individual local authorities, there is a real risk of a ‘postcode lottery’ in terms of virtual schooling and resources. While teachers and authorities should have flexibility over subject curriculum and learning, the online infrastructure must be centralised and led nationally. Education Scotland has so far provided a range of supports and resources to schools and parents, but as work on online learning progresses, national support to ensure equality and parity of access is vital. This view is shared by the IFS in relation to England. There have also been calls for a national ‘virtual school’ to support home-learning and ensure equal national access to resources.

Mitigating impacts of home-learning

Given the likely impact on the attainment of the most disadvantaged pupils and the potential impact of it over the course of the dual curriculum in the next school year, efforts must be made to mitigate this. There are several possible solutions that have been raised to address this issue:

- Adequate and timely data on online learning. Far more effort needs to be made to understand how online learning has been implemented and utilised in Scotland. To overcome the challenges discussed in this paper, there needs to be a comprehensive national understanding of who is using the online provision and why (or why not). Without this understanding, implementing a successful dual curriculum will pose an even greater challenge and leave wider opportunity for inequity to increase.
• **Prioritise the most disadvantaged children and young people for attendance at school.** This suggestion was put to the Cabinet Secretary for Education at the Education and Skills Committee of the Scottish Parliament and he confirmed it would be under consideration by the Government’s Education Recovery Group.44 These groups could be defined as those eligible for Free School Meals – one of the proxy measures for poverty and disadvantage used in Scottish education. Policymakers must also consider those at risk of harm. The EIS survey found that 75% their members who responded believe children on the Child Protection Register should be prioritised. This was 71% for those children who social work believes have home environments which make home-learning more difficult.

• **Offer the most disadvantaged children and young people ‘catch-up’ classes during the summer, whether this is online or in-person (if safe to do so).**

• When schools return, the **most disadvantaged young people should be offered either one-to-one or small group tuition** over and above timetabled teaching time.

• **Put plans in place now for increased pastoral support, which will be key to supportive environments for learning coming out of lockdown.** Indeed, over 80% of UK teachers believe that much of the first term back will be spent addressing social and emotional effects of the pandemic. Over nine in ten also believe more pastoral resources will be needed. Just under 60% also believe that schools’ focus should move from formal exam and qualifications results towards pastoral care.

**Mitigating impact on formal qualifications and post-school destinations**

There have been calls from some politicians and teaching unions such as the SSTA to cancel next the exam diet in 2021 and move to a model of teacher judgement and continuous assessment.45,46 The reasoning for the call is that next years’ cohort of pupils will be disadvantaged compared to previous years due to the disruption of a dual curriculum and reduced class contact time.

Thus far, the 2021 exam diet is still intended to go ahead but last month the Cabinet Secretary for Education told the Scottish Parliament that there could be no certainty that it would be able to go ahead, however:

‘there is a general view within Scottish education of the importance of our having reliable and certificated qualifications for all as part of the way in which we deliver education, and the exam diet represents a significant part of that process.’ 47

Given the rightful strive for reliability and consistency in certification of qualifications, it is also clear that the 2020/21 academic year will be like no other. The move to teacher judgement and continuous assessment next year would be sensible. This could mitigate some of the controversies of this year’s system of statistical moderation which may further disadvantage already disadvantaged young people.

**Conclusion**

Young people, families, teachers and those who govern the education ‘system’ itself have been handed an impossible task. A task that has never been experienced before, and we hope never will be again. While health and safety will always be the overriding priority, focus on how our education system adapts for next year and beyond is rightly a debate at the forefront of the national conversation. Much more has, can, should and will be written about staff and pupil safety, parents
concern and what socially-distant classrooms look like – and these issues are more important than those discussed here. Issues regarding supporting the attainment of all and closing the poverty-related attainment gap must stay close to the surface, however.

While this paper draws conclusions from a plethora of evidence, much more needs to be done to capture an accurate, national picture of how schooling has fared during lockdown. Without understanding who has been accessing school, why (or why not) and how they have been doing it, we may not know the scale of the impact on the attainment gap until it is too late to implement the needed interventions.

There is an understandable temptation to view lockdown and its potential impact on the most disadvantaged pupils in isolation – a one-time ‘event’ which will have its negative impact that can be later rectified. As discussed throughout this paper however, the reality of what schooling will look like come August poses the same threat of widening the gap in attainment between the most and least deprived over a period of years. It is this threat that we have the greatest chance of mitigating. Covid-19 only makes the challenge of closing it more difficult, but close it we must.

--------

References


McIvor, J. 2020. Teachers’ union SSTA says next year’s exams should be cancelled. BBC Scotland. [Accessed 18/5 - https://www.bbc.co.uk/news/uk-scotland-52459049]


Scottish Government. 2020i. Summary Statistics for Attainment and Initial Leaver Destinations, No. 2.


policyscotland.gla.ac.uk
The Key. 2014. *Summer Leaning Loss*.


**Footnotes/References**

**Section one**

2. https://www.bbc.co.uk/news/uk-scotland-51947670
12. Lundie, D. University of Glasgow.

**Section two**

20. https://d3n8a8pro7vhm.cloudfront.net/thesnp/pages/5540/attachments/original/1461753756/SNP_Manifesto2016-accesible.pdf?1461753756
25. https://www.thetimes.co.uk/article/john-swinney-set-to-miss-target-for-improving-deprived-schools-6ww8006qx

Section three

30. https://books.google.co.uk/books/about/The_Summer_Slide.html?id=ZBu5DQAAQBAJ&printsec=frontcover&source=kp_read_button&redir_esc=y#v=onepage&q&f=false
31. http://content.time.com/time/magazine/article/0,9171,2005863,00.html

Section four

34. https://static1.squarespace.com/static/5cee5bd0687a1500015b5a9f/t/5ea073984d99ec29cbb88ff3/1587573666737/LockdownLowdown+Topline+Results.pdf
40. https://eric.ed.gov/?id=ED307332
43. https://reformscotland.com/2020/05/scotland-needs-a-virtual-school-jenifer-johnston/
46. https://www.bbc.co.uk/news/uk-scotland-52459049