

Repurposing Education through Blended Learning (REBEL); a case study of the impact and legacy of COVID-19 on schools in Northern Ireland

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Context

1. School and pupil data for Northern Ireland

In the current school year, 2020-2021, Northern Ireland has 803 primary schools, with 173,266 pupils of whom 28.6% are entitled to Free school meals (FSM). At the end of primary school when pupils are aged 11, they may choose to take a series of academic tests, the 11+, to get a place in a Grammar school. 63,398 pupils attended Grammar schools and 13.7% were eligible for FSM. Those who did not attend Grammar schools, some 84,520 pupils, continue their studies at non-Grammar schools and 37.1% of this group are entitled to FSM. 6,403 children with Special Educational Needs (SEN) who cannot be provided with a suitable education in mainstream schools, attend Special Schools and of these, 50.9% are entitled to FSM. (Department of Education, key statistics, 2021 accessed at <https://www.education-ni.gov.uk/sites/default/files/publications/education/Department%20of%20Education%20Key%20Statistics%202021.pdf>)

The figures for FSM are important both as one indicator of socio-economic disadvantage but also because they are one of the elements in determining funding for schools.

Further, 93% of children attend schools that are either Catholic or 'Controlled' (state schools attended by 61% of pupils who are from a Protestant background), 7% attend schools that are integrated (committed to educating children of all faiths and none together) and 2.5% attend Irish-medium primary schools. Each of these sectors has its own governing body and staff but there is a common curriculum managed by the Curriculum Council for Examinations and Assessment (CCEA) and a centralised ICT service which provides every school with a core provision of internet and wifi access, hardware that is refreshed regularly and a common bank of software including Google Classroom and Office 365. This centralised ICT service, popularly still known as Classroom 2000 (C2K), has its own staff who manage technical problems and provide ongoing teacher support.

2. The phases of the pandemic

Two things stand out about the impact of the COVID-19 pandemic in Northern Ireland when it appeared in March 2020. On the advice of the Public Health Authority (PHA), the Northern Ireland government instructed the Department of Education to close schools and this initial closure lasted until the end of the summer term in June 2020. This prolonged school closure, lasting around 3 months, was totally unprecedented. We have been unable to find any previous examples of the need for such drastic action of a comparable scale. What this meant,

in spite of the various UK wide ‘pandemic-planning’ work prior to March 2020 (Public Health England, 2017, "[Exercise Cygnus Report](#)", *Public Health England*: 57) was that there was no ready-made plan to deal with it. And secondly, the unknown and unpredictable nature of the disease meant that it was extremely difficult to make any long-term plans.

The first lockdown of schools from March-June 2020 was followed by pupils returning to school between September-December 2020 although schooling was disrupted due to pupils having to stay in ‘bubbles’ and in some cases having to self-isolate. Over Christmas and the New Year there was a second wave of COVID-19 infection which led to a second period of school closure from January-March 2021. Schools re-opened in April 2021 with some restrictions, such as the use of social distancing, until the end of the summer term at the end of June 2021.

3. The response of government to COVID-19

To understand how the educational system responded to COVID-19 , it makes sense to appreciate the roles of three key agencies; the Department of Education, (DE) headed by an elected Minister, is responsible for policy formation; the Education Authority (EA), with other arms-length bodies such as the Curriculum Council for Examinations and Assessment (CCEA), the Catholic Council for Maintained Schools (CCMS) and the Controlled Schools’ Support Council (CSSC) implement policy and the Education and Training Inspectorate (ETI) monitors schools to check that policy is being implemented. It is worth noting that during COVID-19, ETI inspections of schools were paused and inspectors worked with schools to get a sense of how they were monitoring and evaluating the delivery and quality of remote learning.

3.1 Responses from the Department of Education and other educational support services

a) The first priority between March-June 2020 was to enable children of key workers and those considered vulnerable to be able to continue to attend school while encouraging schools to provide remote learning for all other children. However, there were no ready-made solutions on exactly how to do this. The different support agencies, described above coordinated by the Department of Education, began a process of closer cooperation as early as March 2020 through the Continuity of Learning Project and set up ‘Cross-Organisational Link Officers’ (COLO) so that every school had one named advisor. They also worked together to produce advice, guidance and training to schools, parents and learners. Special arrangements were put in place to provide modified arrangements for public examinations for children aged 16 and 18 which pupils took in May and June 2020. DE set up a fund to provide devices for disadvantaged and vulnerable learners and by June 2021, 25,000 had been distributed. Parents were supported through tailor-made resources and guidance (<https://ccea.org.uk/learning-resources/quick-guides-curriculum-parents> and <https://ccea.org.uk/about/what-we-do/curriculum>) and parents’ guides to assessment (<https://ccea.org.uk/learning-resources/parents-guide-assessment>), as well as guides and videos to support parents [2](https://ccea.org.uk/learning-resources/supporting-curriculum-</p></div><div data-bbox=)

[and-assessment-202021/primary-resources;](https://www.education-ni.gov.uk/articles/support-parents-and-pupils)
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Concern for the well-being of pupils was a key issue, reflected in advice on remote learning from the Education and Training Inspectorate in their March 2020 memorandum for children in Special schools. (<https://www.etini.gov.uk/news/special-schools-remote-learning>).

During this first phase, teacher trade unions across the UK expressed concerns regarding the possible intrusion of privacy from the use of 'live lessons' advising their members that 'they should only live-stream lessons from their homes, or engage in video-calling, in 'exceptional circumstances with the parent' (<https://schoolsweek.co.uk/coronavirus-teachers-warned-against-live-streaming-lessons/>).

b) The second response was shaped by uncertainty about the trajectory and impact of COVID-19 which meant that in June 2020 firm guidance on elearning was issued to schools by DE; this advised schools in their planning for the school year 2020-2021 to make sensible adjustments to what could be covered in the curriculum (Circular 2020/06, June 2020) and to consider the advantages of 'engaging with pupils through elearning platforms rather than provide hard copy or emailed resources' (Circular 2020/05, June 2020, p.3). This advice was extended by the Education and Training Inspectorate in June 2020 (https://www.etini.gov.uk/sites/etini.gov.uk/files/publications/eti-remote-learning-advice-preschool-and-primary_0.pdf).

c) The third phase can be understood to have two parts; the first was from September - December 2020 when data was gathered from school leaders and through ongoing consultation with schools about training needs through the continuity of learning initiative. One outcome of this was that EA produced more detailed guidance online on good practice in remote learning (<https://sites.google.com/c2ken.net/teacherprofessionallearning-ea/home>), and set up online professional development courses for teachers. Teachers also set up their own self-support groups such as BLENDED NI and NI Teachers' Collaborate. Schools were also requested to undertake contingency planning in case there was a second lockdown. At the end of this period, in January 2021, DE issued a more detailed circular which acknowledged the challenges school and teachers faced but stated that for the immediate future,

'The Department **recommend** (author emphasis) that all schools aim to engage with pupils on an ongoing basis through the wide range of e-learning platforms available rather than provide hard copy or emailed resources alone, if at all possible'.

A follow-up letter to Principals on 9 February updated that guidance and stated that 'there is no expectation of live lessons or of a minimum duration of lessons each day rather the focus is on the high quality teaching and learning experiences that we know most of our schools are providing'.

4. The response in schools prior to REBEL research

Some indication of how schools were able to follow this guidance has been provided by surveys carried out by the Education and Training Inspectorate. (ETI) They published the results of surveys carried out in all sectors of the school system in May 2021, based on data collected in January and February 2021 (<https://www.etini.gov.uk/news/eti-publish-phase-specific-thematic-reports-remote-learning>). The report on primary schools for example noted that 'Schools have transitioned well from setting the children paper-dependent work, to providing activities that use technology in a more extensive, balanced and purposeful way' (p.2) While 92% claimed to be using online platforms, only 42% were using them for live lessons. The report claimed that 'asynchronous teaching approaches, in particular the use of screen-casting and pre-recorded teacher videos, are the most frequently used to direct, model and support learning.'

The report on secondary schools referred to contingency planning as a key element; 'by the beginning of November 2020, all post-primary schools (100% or 193 of 193) had undertaken ..contingency planning to deliver remote learning' (p.2). The report stated, however, that there were persistent barriers for some pupils from inadequate access to hardware and internet connectivity.

'In the questionnaire responses, three-fifths of schools (60% or 96 of 159) and, in discussions with district inspectors [DIs], more than two-fifths of schools (43% or 17 of 40) identified restricted access to IT in the home, including having to share devices, as a barrier to learning. In almost one-half of the questionnaire responses (48% or 76 of 159) and in more than one-quarter of discussions with DIs, (28% or 11 of 40) schools identified internet and/or Wi-Fi issues as a further barrier to pupil engagement and as an ongoing challenge' (p.3).

Commenting on the range of teaching and learning approaches that schools had adopted and the problems around access to hardware, the report noted that 'DE and ETI acknowledge that there is no compelling evidence to indicate that synchronous learning is more effective at improving pupil outcomes than asynchronous approaches'(p.5).

This is the context in which the REBEL project collected data on the impact and legacy of COVID-19 on teaching, learning and assessment, and on relations between schools and parents in June 2021.

5. Methodology of data collected in the REBEL project

5 schools were identified in Northern Ireland; they included different types of primary and both Grammar schools, i.e. where pupils are selected using the 11 plus examination and non-Grammar, non-selective, secondary schools. Once ethical approval had been agreed by Ulster

University, headteachers were contacted and online interviews were carried out with staff, parents and pupils identified by the Principal as being representative of the three groups.

The 5 schools, all of which are coeducational, are referred to as follows

School 1; an urban primary school with 500 pupils of whom 68% were entitled to Free school Meals (FSM) and 24% were identified as having Special Educational Needs (SEN)

School 2; A primary school in a suburban area with 400 pupils of whom 4.5% were entitled to FSM, and 22% are identified as SEN

School 3. A primary school with 196 pupils in a rural village; 14.8% of pupils are entitled to FSM and 21.9% are identified as SEN

School 4. A non-selective secondary school with 600 pupils of whom 16% are entitled to FSM, 14% are SEN and 7% are 'newcomers' and have English as an additional language (cf average of 4%)

School 5 A selective secondary school with 1394 pupils of whom 13% are entitled to FSM and 3% are SEN.

Table 1 Core data on participating schools

	School 1	School 2	School 3	School 4	School 5
Phase (Total Enrolment)	Primary (500)	Primary (400)	Primary (196)	Post-Primary (600)	Post-Primary (1394)
% of FSM (relevant NI average)	68% (28.6%)	4.5% (28.6%)	14.8% (28.6%)	16% (37.1%)	13% (13.7%)
% of SEN	24%	22%	21.9	14%	3%
Number of Teachers Interviewed	3	2	2	2	2
Number of Parents Interviewed	3	2	2	2	2
Number of Pupils Interviewed	3	4	4	3	3

6 Teacher Views

One way to understand teacher perceptions about their experiences is to think about the trajectory between March 2020 and June 2021. As noted earlier this fell into three broad phases, with phase 1, lockdown 1 lasting from March-June 2020, phase 2

covering September to December 2020 and the final phase, lockdown 2, lasting from January-March 2021.

6.1 Phase 1. March-June 2020. From survival, to coping and towards quality learning

The first lockdown, March-June 2020 was marked by an initial sense of shock followed by a very diverse range of school responses. For example, in School 2, one of the teachers noted that

‘we were using a lot of technology, a lot of websites, and we were just emailing them... the worksheets. If there were parents who got back to us and said that they didn't have access to printers or scanners, we actually then printed all the work and put it into folders for them to collect. And so, it was quite chaotic.’

In school 3, families were issued with “Family Guides” explaining the measures in place to keep the school community COVID-19 compliant and safe. This understandable focus on safety and reducing the risk of infection meant that parents coming into school or receiving printed resources was seen as ‘risky’.

Teachers in school 1 gradually agreed to make videos of themselves for their classes while in school 3 some staff were experimenting with Zoom, not least to enable staff to keep in contact and work together. In some of the 5 schools, there was a gradual adoption of either Seesaw for younger pupils or Google Classroom/Office 365 for those aged 8 and above.

This first phase was marked by uncertainty, some confusion and experimentation. It led most of the schools to gather data in June 2020 from parents, staff and pupils about their experiences of remote learning and what they thought could be improved. In some cases responses to the data gathered led to a marked change of approach.

6.2 September-December 2020; back to normality or anticipating the next lockdown?

Although children were mainly back at school for the autumn term, very wide differences began to appear in how the 5 schools responded to the evolving situation. In school 2 for example, where staff took the view that ‘our children would have been independent enough to kind of get on with the work themselves’, teaching returned to ‘normal’.

6.2.1 Staff Professional Development

In contrast, in school 1, as the Principal put it ‘we decided then yes, if this happens again, we need to go with live lessons’. The school accelerated their staff training in the use of Microsoft Teams with the support of ICT experts from the Education Authority and began in December 2020 to collect data from parents and plan how to provide portable devices for all the children who might be learning from home. This included identifying all families that needed help acquiring hardware (interview with Principal and ICT coordinator). In explaining why the school had done this, the Principal and ICT coordinator were clear that ‘we kept that blended

model so children wouldn't lose the experience...or the parents because it was a massive upscaling of parents as well'.

Similarly, in School 5, the main change which was made as a result of the responses to their survey was that the school delivered live sessions – 'It was absolutely apparent that this was something we had to do'. In the first lockdown 'it really was crisis mode'. However, they had a 'continuity of learning' plan ready when the second lockdown happened. This plan outlined modes of work: working fully face-to-face or in 'hyflex mode' when some pupils were at home and others in school learning. This mode meant that students could learn in real time or asynchronously (<https://www.wiley.com/network/instructors-students/teachingstrategies/what-is-hyflex-course-design>). Teachers reported on how they had been able to find ways for **all** staff to start delivering live lessons; the key here was to adopt an approach which reduced teacher workload. Although the delivery of live lessons was not made compulsory, all teachers participated because it was more sustainable.

'We pitched it to staff and said I know you are nervous about going live, I know you are nervous about perhaps pupils recording you, but you can do it in different ways, just like the pupils, you don't have to have your camera on all the time. What we found with staff who were prerecording lessons was that they were doing it after the school day when they had already taught some face-to-face classes and that it just became unsustainable in terms of workload and staff realised if I stream my lesson there and then and get comfortable with that then I can reduce my work and that's when the fears disappeared'.

A great deal of collegiality built up among staff due to this new learning and teachers believed parents appreciated live streaming too as it was important to them that their children could ask *live* questions. In school 3, teachers were focussed on professional development in readiness for what felt like an inevitable period of widespread disruption to schooling. One teacher reported,

'we were always aware that a [second] lockdown was looming. So we constantly made sure that we were trained, up to date and we were confident and comfortable that if the lockdown returned, we'd be ready....and when it came at Christmas we were like, right, we're ready for this, we know what we have to do!'

In School 4, the staff identified the pandemic as a catalyst for staff development and also, as a mechanism to encourage further collaboration and sharing. Two quotations stand out: 'Must-do is a great master' summarized the pressure on teachers to further develop their skills in online teaching and learning, but it was a period of 'everybody pulling together', as staff mentored each other and shared ideas, software and approaches to learning. This sharing was facilitated by the use of Google Drive using shared folders for all staff to contribute. Some staff stepped into a mentoring role, supporting other staff whose skills were less developed.

School 1 also developed a whole-school approach to remote learning through a comprehensive 'remote learning policy' with details of expected standards from staff, parents and pupils. And at the heart of this was the leadership in the school that had found ways to provide all remote learners with access to hardware and mobilised the school ICT technician to trouble-shoot any problems in family homes.

This period in between the two lockdowns throws light on the capacity of these schools to respond to what had happened, to plan for what might lie ahead and, crucially, to work with their staff. It shows how in most of the schools, leadership from the top permeated throughout the school and led to a coherent and better strategy for what was to come.

6.3 Phase 3. Lockdown 2, January-March 2020; Providing and monitoring academic and pastoral education

6.3.1 Balancing synchronous and asynchronous learning

All 5 of the schools gradually moved in lockdown 2 to a single online platform for learning, most using Google Classroom or Office 365 with children aged 8 and above while 'Seesaw' was the preferred platform for younger primary school children. Only 1 of the 5 schools used synchronous learning in the first lockdown but all except one did so in the second lockdown from January-March 2021. However, data from parents in School 5, the selective secondary, showed that when the entire school day was taken over by live lessons, it led to children getting 'exhausted'. As one parent noted, after complaining to the school, they 'pulled back, realised that not every single lesson had to be online and from then on the pace slowed down a little - it became more realistic and long term.. it was the right thing to do'.

At the other end of the spectrum, one of the parents at school 2, who was aware of the live lessons being offered by many schools, commented on the absence of this at the school his children attended. 'I thought it wouldn't have been a bad thing to arrange a Zoom session or something for the pupils ... with the teacher just so that they could say hello to each other online and I never really quite understood why they didn't do that'.

6.3.2 The importance of social interaction

It was becoming clear that personal interaction between staff and pupils as well as between pupils was vital. In school 4, this was encapsulated in a much more explicit level of pastoral support. Form classes were established online, replicating the face-to-face pastoral provision in the school. This had developed from a situation between the two lockdowns in which pupils in classes who were self-isolating were contacted by form teachers. When the second lockdown began, all form teachers established form classes using Google Classroom and had an online form class each day, sometimes synchronous, and sometimes asynchronous. This may have consisted of an inspirational thought, or 'thought for the day' each morning as a start to the day. There were also quizzes and competitions. As one member of staff put it '...pastorally, we really tried to up it this time'. The Vice Principal, who was involved closely in

pastoral care, was able to see the breadth of what teachers were doing, and the high level of pastoral support for learners.

In schools 1, 3 and 4 the staff found a middle way which involved a mix of both real-time and asynchronous contact. Crucially, they had seen the vital importance of social interaction as an essential part of what blended learning should entail. One teacher in school 1, with relatively little prior experience of remote learning before this happened, said,

...'my day started at nine o'clock, my children met online and we had our morning greetings, everybody got a chance to come on and say hello, and then we just got stuck into the work for the day so I was able to share my screen and we talked about what we were doing in maths' .

A teacher in the non-selective secondary school (school 4) also commented on her experiences of using Google Classroom;

'...it just worked for us as a school to keep in touch with the pupils. You know, give them a little bit of support ... maybe pupils who didn't have as much support at home that they knew there was a teacher at the other end of the Google Classroom that we could send a message to, so that was really helpful'.

This concern to ensure that what was provided worked for **all** pupils was also reflected in the views of the pupils in school 3; they benefited from live sessions to initiate learning and one reported on how the remainder of the school day would often be tailored to pupils' individual needs,

'well, it was usually associated with your capability. So, if you really found maths straightforward, you would do it by yourself. If you struggle a little bit with maths, you would go and do a separate Teams call with your friends, to work through it. And then if you really find it hard, you would stay on the same call with the teacher and she will work through it with you.'

Similar views on the need to connect with all pupils, including those who were demotivated, were voiced in School 4. In this school, there were learners who may have had access to devices and broadband, but who found it difficult to motivate themselves to work, sometimes independently. These learners, for whom remote learning was just not working,

'...were invited into school after a period of time, alongside key worker children, for a couple of days per week, [allowing] the duty teacher or form head ...to get them organised and then they were often more confident to go home and access remote learning opportunities'.

6.3.4 Monitoring attendance and participation to ensure equality of access and engagement

In school 5, another change from first to second lockdown was the recording of pupil attendance whilst they were learning at home. As well as form attendance being used at the

start of each day, a spreadsheet was created to monitor pupil online attendance across all subjects. This was checked daily, and phone calls made to the absent pupils' homes to check whether they were well. One teacher stated,

'parents and pupils quickly became aware that there was a process and they weren't forgotten about, that they were visible and their progress was being monitored. It meant I could see across several subjects that this was a pattern of behaviour that needed to be addressed. Also, that contact was really important because the parents could then take action too'.

In school 1, the school regularly monitored pupil attendance of the live lessons and followed up within 48 hours with enquiries to parents when children were absent from class.. The close partnership with the parents meant that the school had '95% engagement with Seesaw. And they had roughly 89% engagement with (Microsoft) teams.'

Monitoring also meant an honest recognition about the children who were struggling with remote learning; in school 3 for example, one of the teachers commented

'...during the previous lockdown, learning for children of disadvantaged backgrounds was limited. We found that they weren't participating at all because, firstly they struggled with their ICT literacy, but also they are the ones who need to be in school, having the direction, having the focus, maybe they didn't have the support at home, or the understanding at home to help them. So, this [second] lockdown, we targeted those children, and we invited those children into school, to ensure that there could still have learning happening....because if they were at home, nothing was happening'.

Very similar comments to this were also noted in School 4.

In school 2, although there was no live teaching in lockdown 2, some staff realised the importance of contact that was not just subject-related; the Principal reported on the asynchronous interactions that one of the teachers had set up

'Children haven't been able to visit each other or be in school with one another. One of the teachers may have just wanted to enable non-academic conversations. It was a creative playground... they're for each of the classrooms where they could go to for work that wasn't related to the specific subject within the MS teams for their class. So I would say it was, it was a general purpose, but it really came to life'

6.5 In summary, the second lockdown showed that in most of the 5 schools there was greater consistency across the whole staff in using teaching that had much more interaction and engagement with pupils than in the first lockdown. There was a conspicuous effort, accompanied by a developing strategy to reach **all** children, particularly those who were struggling with remote learning and to address pastoral as well as academic education. And there was a concerted effort to monitor the level of engagement of children and to take action

when pupils were missing from class. In all of this, what teachers did was shaped by what level of support they got from parents; in the following section we consider their perspective.

7. The views of parents

7.1 Parents as tutors

While some parents were working full time, others were on furlough (a government scheme to continue paying a proportion of wages while parents were off work) and others were working part time or looking after very young children. It was, as one parent from school 2 said, quite a juggling act.

‘We both unfortunately had to carry on working through the pandemic, and then obviously juggling home-schooling as well and that was where I felt the families who had a stay at home mom or dad full time coped with it a lot better, whereas we were two working parents, no furlough and still trying to juggle two children ... it was difficult’.

Parents had to become adept at supporting online learning and get more up to speed with the curriculum their children were studying. Those who were already comfortable with ICT reflected on how important that skill had become.

‘[had I not been working from home] I would have really struggled because my parents, who usually provide childcare, would not be familiar with the likes of Zoom, Seesaw, Teams. They just wouldn't....they wouldn't have been able to deal with any of it and so I suppose it depends on how you are with technology.’

Others, like a parent in school 2, supplemented what the school was providing with their own research; ‘I did a bit of my own research.... there are other websites to provide materials; my old secondary school put up a load of maths puzzles which I downloaded at one point’. In school 5, it was a different story with the school almost sending too much material. One parent acknowledged his responsibility to ‘manage’ his daughter’s attitude towards her learning during the second lockdown;

‘she couldn’t have sustained that level of remote learning for much longer and as a parent the buck stops with me, if I say 2 o’clock on a Thursday is enough then 2 o’clock on a Thursday is enough. I contacted the form teacher to say she has had a tough enough week and is exhausted’.

One of the teachers in school 4 recognised, teachers needed to support parents as well as pupils.

‘some parents just didn't have the knowledge or the skills ... It is very difficult as you know ... even for us as teachers trying to manage our own home schooling so, for parents, it was hard ...so we were trying to support on that level as well.

In short, parents had to take on new and often difficult roles; several commented on how this had brought them closer to what their children were actually studying in school and a better appreciation of the work done by teachers.

7.2 Parents' views of what their school was providing

The comments from parents cited below suggest that some schools were able to offer a consistent approach by most if not all of the staff while others found this more difficult.

School 1 felt that they had got the balance about right and parents here really appreciated the structure that live lessons brought to the day. It was also clear that pupils knew what was expected of them which was vital when they were in the care of grandparents.

'I would say right what are we doing today, what's the plan, and she was able to say, Well, my teacher has given me this and this to do but I need to go back on at 12 o'clock. And then in the afternoon it was very routine I have to say, and that worked for my parents because I was working as well.'

In school 4, parents expressed different views about what the school was offering.

One parent said;

'They made it very easy with everything on Google Classroom and daily update and daily access to teachers.... that was every day, the teachers on that timetable were putting work up, and they were interacting, and they were able to give immediate feedback. I thought ... it was really good'.

Another parent had some issues with what was characterised as a 'lack of structure', particularly at the beginning of the first lockdown. Unlike the previous parent described, he reported that the work for his children was received randomly in 'drips and drabs'. 'We only got five assignments or, you know, things were just dropped in when you got them ... you had very few and then you had lots', he said.

The key difference seems to have been the quality of information provided by schools to parents about when classes were taking place, where the learning material could be located online and how pupil work was to be uploaded for teacher feedback.

In all 5 of the schools, parents appreciated the schools were in an unprecedented situation and teachers needed to be 'cut a bit of slack'. One parent in school 4 expressed the view of many; '...I think there was an overriding feeling that we were in uncharted territory, that this wasn't the norm, and that you had to cut people some slack to sort of adjust to it'.

Some parents had children at other schools and, inevitably, compared the quality of the support their children had received. One from School 4 observed that

'I think that the school, compared to the [other] school, I think they did really well. Very good. I have to say it was 100% more efficient than the [other] school had managed... so I was very happy with them'.

All of the parents noted that teachers were available online when needed and in all of the schools expressed satisfaction with the efforts being made to create a sense of social connection through live classes, frequent phone calls or asynchronous interaction. One parent in school 1 got unexpected insights into how teachers engaged with pupils;

...'the teachers were constantly online, probably longer than they should have been.... I can see a lot of hard work went in and I have to say that ..what you don't see is the lovely healthy relationship with all the pupils in their class, just in the mornings, all those little things that we don't get when we drop them off at the door.'

7.3 Parental concerns

A number of parents had problems with Wi-Fi which led to tension at home as different family members sought to assert their needs. One of the children reported,

'I live out in the country so my wi-fi is really, really bad. I have 2 brothers and a mum and a dad and they're teachers as well and we can only have one person online at once, so we had to keep taking it in turns. We all had lots of arguments because of that and whose work was most important, that was horrid'.

There were different views too about the different roles of synchronous and asynchronous learning. One of the parents in school 4 talked very positively about the effect of real-time learning for her child;

'.... he was lucky enough that he was part of an extra [subject] tuition group and that got a weekly phone call. So there were maybe some weeks where he had two or three opportunities [for synchronous learning]. But definitely he really engaged with and really looked forward to those. And he was looking forward to seeing the teachers and other peers as well'

One of the very few negative comments about live sessions came from another parent with a child at the same school. He noted there was... 'a live [subject] session and my son was late for it or something ...he couldn't get the computer to work for him, and he got very distressed at this... so, I think, those live sessions and the pressure of joining on time, I think, added too much stress [even though] they were supposed to be fun activities.'

Several parents reported concerns over their children's well-being and the amount of screen time they were doing. It led a parent in school 5 to be concerned that in the future, and with a view to saving money, schools would be pushed into more and more online learning.

7.4 The upside

In all 5 schools, parents commented on their children often showing greater independence and resilience and having a real sense of agency in taking more responsibility for their learning. One of the parents in school 3 for example described this for his child;

.....'the responsibility that he had of completing that work by himself, and actually going in and uploading that himself on the teams, that is solely his responsibility [...] because usually I would have been running around at night, packing the school bags, making sure everything was inside, whereas that gave him a bit more responsibility around making sure that his own work was there'.

In school 5, parents could see the benefits of particular technology tools for their children's learning, 'one tool that is great is Google classroom for homework, that is useful, my daughter loves having everything together in the same place, it's super, and should be kept, especially useful for those teenage boys who are disorganised'; this was despite worries about too much time spent in front of screens. 'I noticed her in the mornings on Google meet - she was like a zombie. It's tricky, I'm telling her to stay away from screens one minute but then telling her to use her phone for school all day'.

One parent recognised that their child's independence had increased: 'he has had to step right up to this, get himself organised and not be spoon-fed so much, that is good and something we need to hang on to and reinstall in our kids again. We all do too much for them'.

8. The Pupils' Views

8.1 Adaptability and pragmatism

The pragmatism and adaptability of the pupil-participants was a striking feature in school 3 with pupils frequently acknowledging the unpredictability of the disruption to learning and were unanimously supportive of their teachers' endeavours. But in school 4, there were clear differences in how the pupils reacted. Some adapted to it with apparent ease 'it was just like normal... I did my work and went about what I did usually', one commented. Others welcomed the additional time that it provided when not having to dress for or travel to school, adding 'you can get up when you want like you didn't have to get up early like you would for school, to be dressed for 9.00am'. For others, it was a more challenging experience. One argued that she found the whole experience tough. Another pupil said 'I found it difficult to get the motivation to actually do things. I found it hard to understand the stuff ... the way it would be worded. I just found it hard to learn like that'.

8.2 Preference for synchronous lessons and clear structure for lessons

Most pupils in School 4 and in all other schools voiced a preference for synchronous teaching, particularly if the task was in any way ambiguous or complex.

'I prefer having the Zoom calls... especially with [two subjects identified] and stuff like that so I could actually have it all explained to me, especially for subjects that I struggle with'.

Synchronous calls were preferred, according to one pupil ‘...because it was more explained, kind of, instead of like reading it yourself and having to read over and over it to understand it, you had a teacher there kind of telling you what to do. You could ask questions if you were stuck in something, rather than wait for someone to reply on Google classroom or anything’.

However, the pupils did concede that some of their classmates had challenges in getting access to synchronous lessons as ‘some people who live out more in country they don't have as good Wi-Fi out there so they wouldn't be able to do the live lessons really’.

Only three of the approximately nine subjects studied by the pupils in this school provided synchronous teaching, although other teachers not teaching this group of respondents may also have conducted such lessons. For other lessons, teachers used a variety of approaches. Some put up PowerPoints with voiceovers or a video of the teacher explaining the content, and the tasks that accompanied them. Some PowerPoints were praised by the pupils for their clarity in terms of content and their associated activities:

‘She ... told you everything that you needed to do, like read this on such and such a page, do whatever and submit certain pages ...and then it would have been a PowerPoint explaining everything like in detail as well’.

The pupils described how some teachers sent information at the beginning of the week, so a lot of learning materials would become available on a Monday morning, and the week consisted of working through the content and the activities. ‘You got it like on a Monday and everything is due for Friday’, one said and another learner added ‘it made it harder to get it done, because it would just be piling up, all this work, and then it would all be due for one day ... [that] made it harder’. Such was the workload that another learner would have preferred to have been sent a schedule to structure the workload more fully, and to help to spread the learning and the activities through the week.

8.3 Contacting teachers

All of the pupils agreed that they could freely contact their teachers with queries or for clarification of asynchronous tasks, generally by private message. One issue that they raised was the delay in getting responses from some teachers, which left them frustrated at being unable to make progress with their work. ‘Some teachers took a few days to respond’, one said, and this sometimes meant that ‘...we would have been left to figure it out ourselves’.

School 4 also contacted the pupils to seek their views as to how online learning was working for them. This consisted of an online questionnaire submitted through Google Classroom. Another questionnaire was applied on the pupils' return to face-to-face teaching.

8.4 Benefits and challenges of remote learning

The flexibility afforded by online learning was commented on by some of the learners, and the workload meant that schoolwork did not extend to the weekends. One said, ‘You had

more time at the weekend, like you didn't have homework over the weekend, you can get your work done in a week', and another suggested that

'You could get your all the work done for ... a certain day ... in like a couple of hours instead of like the six hours of school, I mean you can do whatever you did at home like walk the dogs or whatever you think... you didn't eat at a certain time, you could just go down to the kitchen and get food whenever you wanted'.

Similar views were expressed in School 3, the rural primary school.

Pupils enjoyed more long-term projects, focusing on reading and art, for example, and the use of digital tools for organisation, presentation and collaboration were welcomed. The more laid-back school arrangements during school closure were appealing to many – the flexibility meant they 'could spend more time with family' 'could stay in bed until half nine and then be in the video call for 10, like sitting and eating breakfast while on it', and 'can get all of your work done really early - before three o'clock...and then you're just done for the day'

The learners could also see the benefits of technology, despite their preference for face-to-face teaching.

'I think Google Classroom was good at certain things, like you can hand it in online, rather than having to bring it in'.

In School 5, pupils also had mixed views; although these learners could all see the benefits of technology, two out of three of them expressed a preference for face-to-face learning. One said that it helped her gain confidence when she was normally shy to answer questions in face to face teaching. 'If something is hard you can text the teacher on Google classroom privately online to ask and you don't have to feel embarrassed 'cos you think everybody else might know it – so that's a really good part of learning online'.

A year 11 girl thought homework was set much more clearly when supported by technology;

'I loved Google Classroom 'cos all the instructions for the tasks are there and the date it has to be put up, all just there on your phone. I know we have homework diaries here, but you can have all the instructions laid out and the links to the sources are there to click on in Google Classroom'.

Finally, in school 2, pupils liked working in MS teams not only because they didn't have to print out work but because they were able to upload completed tasks and get feedback; one of them expressed it like this; 'you can go through and take a picture of your work then send it to teacher so she can see and make sure that it's all correct'. And it was the feedback from the teacher and the chance to interact with them that meant a lot to the pupils, 'where we can post over a message to teacher privately so if we have a problem, we could ask them why the mark was right'.

But online learning was not easy; there were issues with access to hardware, noted by one of the pupils, 'Before Christmas I had to work off my dad's laptop because I didn't have one...and this was really awkward' For others, it was the fact that there were many distractions, noted by one of the pupils; 'you can easily get distracted from your work, because you're on a computer, or when you could easily just click one button for YouTube or something'.

Looking back over the whole experience, pupils noted they often had closer links with their families and some at least, had been forced 'to become more mature'. They could not depend on the same level of support from teachers and they had to look for help wherever they could, including their classmates. As one pupil put it, 'I feel like sometimes if you didn't understand after school, you can ask a question on something like Teams, and then one of your friends could reply and explain it.' Some teachers in School 5 saw pupils taking much more ownership of their learning and saw this as something to develop for the future;

'they have been able to create more flexible ways of learning for themselves, using each other and not the teacher as the go to for everything, engaging with the flipped classroom – getting the content themselves first then exploring it in class – this is what we need to capture and take forward'.

9. Facilitating and Hindering Factors in the delivery of blended learning

9.1 Quality of Leadership

Almost every one of the potential hindering factors, such as lack of staff training, problems with online access for pupils or relationships with parents and pupils were turned into facilitating factors in most of the 5 schools. Principals anticipated problems, such as the probability of a second lockdown and took action to upskill staff, to make sure parents knew what was expected of them and in some cases to ensure that pupils were provided with hardware and technical support to help deal with internet connectivity (school 1). The evidence in this report is full of examples of this kind of leadership. It extended to making sure that there was strong middle leadership, with staff, such as ICT leaders, who were given the support to manage coherent remote learning policies (schools 1, 3, 4 and 5). It also meant acknowledging openly when things had not been done as well as they should have, such as the recognition that those with learning needs required additional support (schools 3 and 4). It was also a measure of good leadership that in 4 of the schools, there had been enough investment in ICT in terms of hardware, software and staff development prior to the pandemic that the learning curve to deal with the lockdown was more manageable. It meant there was a greater staff and parental readiness to get behind strategies that placed ICT at the forefront of the schools' blended learning strategies.

9.2 Teacher professional development

In all 5 schools, steps were taken to encourage staff to become more confident in the use of remote learning; in most cases this led to training sessions in school which covered technical aspects as well as pedagogical ones. In school 4, teacher learning stimulated a far more

collegial culture with staff sharing ideas and insights. One of the teachers interviewed commented

...'it was actually just so lovely to see certain staff, when they found something that they thought was fantastic, they were straightaway, just sharing it, you know, to the whole school ... we had a whole-school Google Drive area that you're able to just post on and comment on. So that was really, really positive and encouraging as well'.

9.3 Managing parental expectations

One challenge noted in school 4 was managing the expectations of some parents, particularly those who felt that synchronous teaching could replace the traditional school day. 'A lot of our parents wanted just like Zoom-crazy', one teacher commented. Parents had to see the reasons for not moving all teaching online – variations in levels of access, shared devices in some homes, and issues of variable connectivity, as well as safeguarding issues: 'a child who doesn't want to go on [as] their dad might appear in the back of the camera drunk'. The effectiveness of a mixed synchronous/asynchronous approach to learning, supplemented with some hard copy going to homes and extensive support both academic and pastoral, had to be demonstrated to parents to be effective. The key here was not the volume of information from school to parents but its timeliness and tone.

More broadly, schools also had to cope with varying levels of parental confidence in supporting their children and uneven access to wifi. This proved to be a bigger challenge than access to hardware and raises unsettling questions about why there are still problems with internet access in too many rural areas in Northern Ireland.

9.4 The primacy of live interaction and the role of asynchronous learning

In all 5 schools, the overwhelming verdict of parents and pupils was that remote learning needed to have some element of real-time interaction with both pupils and teachers, whether through live lessons, teachers responding in real-time to questions, phone calls or if not, through teachers responding to work asynchronously. One example of this kind of collaborative work came from school 5 with a teacher describing how the software 'Jamboard' was used.

'With JamBoard I could have multiple pupils all working live simultaneously and I could give immediate feedback to pupils, see where their misunderstandings were, I used it nearly all the time during live sessions but also during asynchronous learning. Their peers could comment on their work and the pupils loved it 'cos they could use it on their phones'.

A parent in one of the primary schools (school 3), underlined the reality of home-schooling and how valuable live lessons were for her child;

'The sessions on Teams....I really can't highlight enough how brilliant they were because it meant for those two hours of the day [my son] was taken care of [...] the

workload was taken care of, which meant I was able to deal with my youngest son' Although there wasn't much prior evidence before the pandemic of the advantages of synchronous learning in terms of educational outcomes, the data from these schools is very clear. Live lessons often created 'social and teacher presence', seen as essential to pupil engagement. The schools that seemed to be most successful in carrying pupils and parents with them were the ones that mixed live contact with some asynchronous work; we think that more could be done on this in the future, particularly around pupil use and teacher moderation of asynchronous discussions.

10. Lessons for the Future

10.1 More and better use of ICT for learning

All of the schools claimed that they would expect to make greater use of ICT, even though in schools 3 and 4 it was claimed that this aspiration was hindered by inadequate Wi-Fi on the school premises. The collaborative culture which had emerged here was seen as a real asset for the future. One teacher in School 5 suggested that staff have realised the importance of focusing on skills development instead of being driven purely by content and attainment.

'The 21st century skills, creativity, communication and collaboration can be incorporated. When looking at our online curriculum we realised there is an awful lot of content we don't need and there is room for skills work. For example, digital communication skills – how do you frame an online response to a peer in a respectful way? This is important stuff, important learning that we can take forward and make room for. As a grammar school we are focusing all the time on learning of content to pass exams but online learning has really highlighted the usefulness of those skills to us'.

It was also noted in School 4 that online training of staff had proved very successful and should be further developed in the future.

10.2 Better links with parents

In school 4, some parents expressed the hope that some of the initiatives pioneered for them during home schooling would not disappear from the toolsets of schools. The online learning presence to supplement face-to-face learning was thought to have continued value:

'Definitely that online element should continue. I think it's very easy for me as a parent to keep track of what's going on with the learner and with the use of Google Classroom and so far I have noticed that some of the teachers do continue to upload the work there daily or weekly... hopefully that continues because I do find it very useful to keep that kind of relationship between parents, child and teacher going'.

However, there was still a wish to retain and return to some connections between parents and school staff which are more personalised:

'...a lot of the contacts come through technology, so it's all coming through apps, emails, online letters, which I think should continue it's very good for keeping us up to date and

you're getting immediate information. However, I would also like to say, face-to-face, whether it's in person or maybe via video call, or phone call, I'd like a wee bit more of that againthe personal interaction'.

Parental portals have been talked about for a couple of decades, and these were initially considered in the road map for C2k, but never developed. All the parents expressed a wish for functionality such as that which would be in such a portal, strengthening the home-school link and increasing transparency for parents. One parent noted how 'I would have seen notifications coming through [when] a teacher had issued work'. Another commented that 'I was able to see what he was having to do and make sure that he was doing it well'.

In school 5, online parent teacher meetings were also seen to have been effective and something they will definitely keep moving forward. 'It was much more convenient for parents who didn't have to take time off work'.

11. Conclusion

Much has been learned by schools about blended learning between March 2020 and July 2021. It seems very likely that the unpredictable nature of COVID-19 will continue to affect schools from September 2021. If, as expected, schools do return to face to face teaching, there may well be significant pupil absences from class and an ongoing need for teachers to deliver learning that meets the needs of those present in the classroom and those learning from home.

To meet this continued challenge, further teacher professional development will be needed to make optimal use of online learning platforms; although only one of our case study schools made no use of live lessons, the evidence from almost all the schools shows how much this was valued by parents and pupils, provided that it was done in moderation. However, to put this in context, the May 2021 ETI survey found that only 42% of all primary schools had offered live lessons. Teachers need support not just to provide interesting academic work but to understand how to use a wide range of techniques to engage pupils and connect with them socially. This contact can come in many forms ranging from live lessons to teacher presence in online discussions or, with older pupils, collaborative document authoring.