



Education Services:
Glasgow Stories of Recovery,
Resilience and Re-connection
Digital Inclusion
September 2021



GLASGOW: Nurturing City





GLASGOW STORIES OF RECOVERY, RESILIENCE AND RE-CONNECTION DIGITAL INCLUSION



1.



Schools and nurseries
closed on
23rd March
2020



2. THE DIGITAL INCLUSION PROGRAM - FIRST PHASE

In November/December 2020, Education Services purchased 7,240 iPads and 4,224 internet connectivity devices which have been delivered to children and young people across the city.



123

3.

3. IMPACT OF THE DIGITAL INCLUSION PROGRAM

Support for the most disadvantaged children who did not have access to digital technology at home – poverty proofing and improved access to education, opportunities and development.

Higher level of engagement in online class activities and homework during the pandemic.

The devices allowed maintaining and improving positive communication between school, pupils and families.

Translation apps on iPads provide support for families with English as additional language.



iPads' tools provide support for children with learning difficulties and allow pupils to engage in creative and developmental activities.

4.

4. THE NEXT STEPS

Further digitisation of our schools supported by the Digital Inclusion program.

In March and April 2021, 378 Chromebooks and 943 internet connectivity devices have been delivered to our schools across the city.

In June 2021, the second phase of the Digital Inclusion program has seen another 2325 shared iPads being delivered to schools to support our pupils.





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Introduction from the Executive Director



We live in a rapidly changing world. In recent years, digital development has significantly transformed the way we work, do business, shop, entertain and socialise. Internet use and digital connectivity currently pervade every aspect of daily life and provide an incredible range of opportunities - improved access to knowledge, education, employment, services, new markets and global opportunities.

However, as the world becomes 'smarter', the digital divide becomes wider. Digital exclusion is the disparity in access and abilities to use information and communication technology that are essential to fully participate in a contemporary society (Amit et al., 2015). Three main areas of digital inequalities include the limited access to devices, internet, as well as, lack of 'skills, usage and engagement' (Humphry, 2019).

Digital exclusion is closely associated with poverty and prevailing socio-economic inequalities. In the UK, it has been estimated that 90% of those who don't use the internet suffer from economic disadvantages (Burgess, 2020). In 2017, the Scottish Government reported that over 30% of the most economically disadvantaged households do not have any internet access, and 19% of Scottish people do not have basic skills to use digital technology (Halliday, 2020).

Access to digital technology is particularly important for young people's education and development. As stated in the Inspiring Scotland report, lack of access to digital hardware and technology significantly limits the development of digital literacy among young people. Consequently, young people tend toward engaging in non-productive activities, such as gaming or messaging, rather than completing schoolwork or personal development (Halliday, 2020). Therefore, digital exclusion, considered as a new form of social deprivation (Burgess, 2020), contributes to widening the attainment gap, and limits the development opportunities among young people.

On 11 March 2020, the World Health Organisation declared the global Coronavirus (Covid-19) pandemic. Consequently, the Scottish Government implemented social distancing measures and lockdowns to mitigate transmission of the virus.

In Glasgow, the majority of schools and nurseries closed on 23rd March 2020 except for a few education establishments operating as hubs for vulnerable children and children of key workers. During the lockdown, the main priority of

schools in Glasgow was to effectively implement distance learning and ensure that children and young people, parents and teachers remained connected, safe and focused on wellbeing.

On the one hand, the current pandemic has dramatically increased the pace of digitisation. On the other hand, it has increased digital exclusion in Scotland. Therefore, on 3rd July 2020, the Scottish Government offered a one-year grant to all local authorities to tackle digital exclusion and provide equal access to education and opportunities for all pupils regardless of their circumstances. Education Services in Glasgow received £3.1 M. of government funding and purchased a range of equipment which was delivered to pupils across the city by early December 2020 (McClung, 2021).

This report is part of the Glasgow Stories of Recovery series of papers describing the challenges and experiences of our pupils, families and staff during the pandemic. It provides an insight into remote learning and evaluates an impact of the first phase of the Digital Inclusion Program in Glasgow.

Maureen McKenna
August 2021



To learn about the impact of the Digital Inclusion program on our pupils and their families, Education Services interviewed three Digital Leaders of Learning (DLOL) from primary and secondary establishments in Glasgow. Research participants received questions prior to the interviews. It gave them a chance to prepare in advance of the interview, speak to pupils, parents and staff, and discuss the benefits and disadvantages of the Digital Inclusion program in our schools.

The key themes discussed during the interviews included:

- challenges of remote learning for our pupils, families and staff;
- impact of the Digital Inclusion program on communication and engagement in class activities during lockdowns;
- impact of the Digital Inclusion program on lives of our pupils and their families;
- limitations of the Digital Inclusion program;
- further digitisation of our schools and hopes for the future.

Digital Inclusion first phase – overview

iPads & Chromebooks

As part of the Connected Learning program in Glasgow, all secondary school pupils, all pupils attending Additional Support for Learning schools (ASL) and all primary 7 pupils already had their own individual iPad when lockdown began or received theirs shortly after the start of the first lockdown. Consequently, only pupils from primary 1 to primary 6 were considered for an iPad or Chromebook from the Digital Inclusion grant.

By the end of 2020, Education Services purchased and delivered 7,240 iPads and Chromebooks to primary school pupils. It has been estimated that this number of devices has met 65% of the demand across the city (McClung, 2021).



Internet connectivity devices and security application

In the first phase of the Digital Inclusion program, Education Services purchased 4,224 internet connectivity devices with 12-month data contracts. The devices were delivered to pupils and young people attending primary, ASL and secondary establishments, who did not have fixed access to the internet at home.

Primary and ASL pupils were issued 20GB of data per month and secondary pupils were given unlimited data. The data quotas were estimated based on the materials that children and young people had to access online to support their home learning (McClung, 2021).

Education Services purchased a web filtering application Asavie Moda to ensure pupils and young people access only appropriate content on the internet. The application blocks access to inappropriate or suspicious websites and it also allows the authority to analyse the activity and data usage of the devices.

How were the pupils who needed Digital Inclusion devices identified?

Education Services worked closely with headteachers and DLOs across the city to identify pupils who should be prioritised for Digital Inclusion devices. School staff used online surveys and individual phone calls to identify families and children who did not have access to devices at home.

Online and phone surveys included the following questions:

- What kind of devices do you have at home (laptop, iPad, phone, etc.)?
- Do you have a fixed access to the internet at home?

As the initial information was collected, schools also had to consider family circumstances and the number of siblings in the household as well.

'When we were finally deciding who is going to get the Digital Inclusion devices, we looked at families as well. We did not want to give siblings more than one device because there could be one that could go to another house. So,

we just gave one device to the household.'

'Children who had no siblings at school had to have a device because they were not sharing. So, we allocated one device to them and then saw what we are left with. [...] We also managed to give two devices for children who had five siblings.'

Other support

Education Services negotiated a one year contract with Glasgow Life to establish a free phone helpline for families who received devices from the grant. This has recently been extended by another year into 2022. The helpline provides support to set up equipment, troubleshoot and answers to other enquiries related to the online learning.

Additionally, Education Services in cooperation with Glasgow Life produced simple user guides which have been attached to every device distributed across the city. User guides have also been translated into ten other languages and made available to schools.

Challenges of remote learning

Teachers across primary and secondary sectors acknowledged that MS Teams, SeeSaw, Google Classroom, Showbie and other online applications were used heavily during lockdowns to post materials or video lessons, deliver live lessons, interact with pupils and provide feedback. Delivering live lessons and recording lessons required advanced digital skills and a high level of confidence. Not every teacher was comfortable to go down that route, therefore, the choice of how to deliver the lesson was often left to the teachers' discretion.

'Initially it was a case of putting materials out for people to access. Then staff began to experiment with a content video of themselves to deliver the lesson and more confident members of staff went for the live lessons.'

'Some of the teachers had a rotated schedule where one of them delivered a mass lesson to all primary 7 classes and then different teacher delivered a different lesson. All the classes were on Teams watching it.'





The live lessons received very positive feedback from pupils and their families and had a great impact on the level of engagement in class activities. Live lessons allowed children to interact with the teacher directly and get involved in interesting and creative activities. For example, one of our primary school teachers delivered a live cookery class. Pupils had all the ingredients beforehand and they were preparing them along with the teacher. At the end they could share pictures of their final creations with the class.

'Live lessons were one way to get pupils more active and more engaged and they really liked that.'

'Even those simple things to let them see teacher`s face and join activities made a difference.'

The provision of home learning differed greatly between primary and secondary schools due to availability of the devices and the ability to use them. Every secondary pupil across the city had their own Connected Learning iPads and they had some time to use the devices as a class tool prior to the first lockdown. The same applied to all primary 7 pupils who also received Connected Learning iPads before the first schools' closure or shortly after that. Still, a number of our primary school children and their families

remained disadvantaged during the first schools' closure as they did not have adequate devices to access online content and attend live lessons. Consequently, pupils without devices missed out on many engaging online activities, opportunities and experiences taking place at the school. The distribution of paper packs containing practical tasks and family activities, numeracy and literacy learning resources and daily routines mitigated these challenges to some extent, but it could not replace the opportunity to interact with the teacher and classmates directly.

'During the first lockdown we had no online learning, and everything was done via paper packs. Although, during the first school closure our teachers had access to iPads, we knew that most of our families did not have devices and online access at home. We had families who had devices at home, but it was a minority.'

Lack of Wi-Fi, overloaded Wi-Fi or poor internet connection at home were other common issues discussed with our DLOs. When multi-member families were working and learning from home, it was putting extra pressure on the household's internet connection. In some cases, children

could not join online classes as their parents had to take priority to be able to work, for example, to make an important video call.

Obviously, pupils who were using iPads as a class tool and pupils who had access to devices at home had a greater level of confidence and digital skills comparing to primary school pupils in lower stages who had no experience of using iPads. Moreover, younger children were more reliant on their parents to help them with accessing online content and completing learning tasks. Some parents who had limited or no previous experience with technology were not able to help their children with online activities as they did not have adequate digital skills themselves.

'The big challenge for us was lack of digital skills. Our families and children did not know how to use iPads as we were not teaching digital skills at school. If we would have the devices at school earlier, it would be a very different picture. They would be using it in the classroom, they would have picked up the basics.'

'Parents were not always available for their children. When adults are working, they cannot be together with kids all the time, and it is more difficult when kids are younger. We did our best to give them everything they needed to engage.'





What has gone well?

Impact on engagement

Our DLOs acknowledged that the level of engagement in online class activities and homework was significantly higher during the second lockdown in January 2021 in comparison to the first schools' closure in March 2020. Thanks to the Digital Inclusion iPads and internet connectivity devices children and young people had better access to online learning materials and online forms of communication with teachers and classmates. They were able to join live lessons, learn, and fully participate in the school community.

'Definitively, for those who took the dongles that we gave out it made a big difference. And it was not only for pupils who had no Wi-Fi at home. Pupils who seemed to be in households where the quality of Wi-Fi was very poor also benefited from using the devices. Mi-Fi dongles provided additional backup for overloaded Wi-Fi.'

'Everyone I spoke to were very enthusiastic and gave a positive feedback about the impact of the Digital Inclusion iPads in our school.'

'It was equity for all. Not necessarily the equity in terms of the device and the time they had on it, but everybody had the access.'

'It made a massive difference to our school. We would not have online learning without the devices.'

Obviously, attendance and engagement levels have never amounted to 100% during both lockdowns. But those who received the Digital Inclusion iPads or Mi-Fi dongles could no longer say that they have not completed homework because they do not have access to the devices at home.



"If pupils do not have Wi-Fi at home, they cannot do their homework. But once they have got a Mi-Fi device, they are still a full member of our community and they can do the homework. So, Mi-Fi devices helped to poverty proof homework."

Pupils who were not engaging often had different reasons, such as, difficult family circumstances, lack of motivation or lack of digital skills to use applications and access online materials. Moreover, some children from multi-member families still had to share the devices with siblings as the Digital Inclusion program did not meet 100% of the demand for iPads across the city.

Inclusive communication and emotional support

Teachers across primary and secondary sectors emphasized the importance of building and maintaining positive communication with pupils and their families during the unprecedented and challenging periods of lockdown. In Glasgow, families are a part of our schools as much as the children are. Therefore, it was essential to connect with our families to provide mental and emotional support. Schools across the city have

been communicating with their families through regular pastoral phone calls, usually on a weekly basis, which allowed them to check in on families and offer support. Schools also have been using other forms of communication, for example MS Teams, to organise weekly drop in sessions during which parents and pupils had a chance to interact and ask questions. Less formal forms of communication included various online platforms, such as Twitter, Facebook or SeeSaw. Those platforms have been used to add comments and share photos of children at home while doing school activities.

Although, a lot has been done to build and maintain positive communication between schools and families during the first lockdown, many families remained disadvantaged and disconnected due to language barriers. For a lot of families who do not speak English as a first language, phone calls or online drop-in sessions were not a suitable form of communication.

'Currently the school has 205 children. Among those children we have 26 different languages spoken across the school. We have children who have absolutely no English and we have a huge

spread of language acquisition which obviously impacts on our parents and our communication.'

Digital Inclusion iPads allowed families with English as an additional language to engage and fully participate in the school community and class activities. Users could change the language on the device and use a Microsoft translating application to understand tasks and homework. That helped them to engage in learning and significantly improved the communication between schools and those families.

'One pupil had difficulties at first because they speak an Egyptian form of Arabic at home. The family who received a Digital Inclusion iPad found a language they could manage the best. That greatly improved communication between the teacher and the household.'

'The parents were saying that the connection with the school up until the return after Easter was definitively improved by having the device in the house.'

Support for families

As already stated, before Digital Inclusion iPads and internet connectivity devices were delivered to our pupils, teachers and DLOs from each school had to identify those children who would benefit the most from using the devices. In some of the establishments across the city one of the criteria for allocating the devices was family circumstances and the number of siblings in the household. When the family received an extra device, more children could attend online lessons at the same time. Therefore, the distribution of Digital Inclusion devices to multi-member families has not only supported individual pupils but it has had an impact on whole families.





'We gave an iPad to our P3 pupil even though we knew that he had an older brother in P7. That was a household with lots of siblings and they were all sharing the big brother`s device. Consequently, the iPad we gave to the P3 child has helped not only this child, but it also improved the situation in the household.'

New and inclusive ways of learning

Digital Inclusion iPads allowed pupils to engage in learning differently and provided opportunities for those who were struggling with traditional forms and methods of education.

The devices have many useful tools to support children with dyslexia and other additional support needs. The user can personalise settings, change the size, type and colour of the font of the learning materials or use specialist applications supporting spelling and punctuation. For example, during the interviews, we heard a story of a dyslexic pupil who was struggling with paper learning materials. Since they started using a Digital Inclusion iPad to complete homework, their spelling and attainment have improved

significantly. Their teacher said that the device had a massive impact for them. Similarly, another pupil with additional support needs could use the Digital Inclusion iPad during an imaginative writing lesson to record their story and send it to the teacher. Although the pupil could not complete the writing element of the task, they were still able to tell their story and receive feedback from the teacher.

Pupils also can use their devices beyond regular school tasks. Although access to many websites and applications have been blocked on the iPads for pupil safety, children can still engage with educational games, quizzes, drawing apps or online Math challenges. Pupils were also able to use coding apps to create their own games. Therefore, iPads offer a wide range of applications and tools which, if used appropriately, may support learning, personal development and creativity.

Our teachers and staff

As discussed during the interviews, there was a noticeable increase in the engagement levels at our schools during the second lockdown compared to the first school closure. Undoubtedly, the Digital Inclusion program contributed to this increase as it provided massive support for our

pupils who did not have appropriate devices and online access in the first lockdown. However, the program would not be successful without our dedicated teachers, support staff and DLOs who helped to allocate the Digital Inclusion devices and did an incredible amount of work to learn digital skills and most importantly, ensure the high quality of online learning at our schools across the city.

During the first schools' closure, large numbers of teachers were not familiar with using digital technology and online applications to post homework and carry out remote learning. Delivering live lessons, recording lessons and using the devices required advanced digital skills and a high level of confidence. Teachers had to deal with increased workload and learn new skills at a very fast pace.

'The main issue was getting the grasp of technology. Some teachers did not even know how to record the lesson and they haven`t thought to use their iPads. That was the issue we were trying to support them with, and it was a great learning lesson for our staff. It was upskilling the staff.'

'When schools closed in January this year, we realised that we need to fly with it, and we could not be saying that we cannot do it. We had the Digital Inclusion devices. [...] We were talking about it with the staff and they said that it has been an amazing year because we had to go with it.'

Over the last year, our teachers were motivated to continually upskill themselves as well as supporting other colleagues in the process of personal development and improving digital fluency. During the second lockdown, teachers already had some experience and were more confident in using various tools and functions of digital devices. As a result, they were able to create improved learning materials and carry out live lessons which, as mentioned before, were more engaging, interactive and enjoyable for our pupils.





What has not gone well?

Issues with iPads and internet connectivity devices

From December 2020 to February 2021 the Glasgow Life helpline received 149 phone calls. In December, most of the enquiries were related to the internet connectivity issues with the MiFi devices. Reported issues were caused by the internet security application that was installed on the devices which prevented the devices from connecting to the internet. Technician Support Services (TSS) repaired or replaced most of the malfunctioning devices in mid-December.

Other common problems reported to the Glasgow Life helpline by teachers, parents and pupils were concerned with the inability to download or use applications such as Glow, MS Teams, Seesaw, Showbie, Google Classroom, etc. Many enquiries also concerned missing or expired passwords and proxy settings. Depending on the complexity of the problem, the Glasgow Life helpline offered a wide range of solutions. Some issues were solved right away by helpline operators and others were referred to schools or CGI.

Greater demand for iPads

During the interviews, it has been recognised that some schools had a far greater demand for iPads than what they were allocated.

'I had 113 children out of 170 children who had no access at home to any sort of online device. We have lots of families who shared one smartphone, but we did not include that as it was not appropriate for learning. So, 113 children had no access and I got allocated 71 Digital Inclusion iPads. It was very difficult to try to work out how to allocate them.'

In response to this demand, Education Services in Glasgow continue the Digital Inclusion program. In March and April 2021, an additional 378 Chromebooks and 943 internet connectivity devices have been delivered to our schools across the city. In June 2021, the second phase of the Digital Inclusion program has seen another 2,325 shared iPads being delivered to schools to support our pupils.

Summary

This paper has assessed the impact of the Digital Inclusion program in our primary, secondary and ASL schools in Glasgow. This report highlights some of the challenges which our staff, pupils and their families were facing during remote learning, but most importantly, it tells stories showing the importance of digital fluency and digital inclusion in the modern world.

As discussed during the interviews, the distribution of Digital Inclusion iPads and internet connectivity devices had a massive impact in our schools. The devices delivered as part of the program in November/December 2020 supported the most disadvantaged children who did not have access to digital technology at home, or those who had to share devices with other family members. Thanks to the Digital Inclusion devices pupils had easier access to online learning materials and online forms of communication with teachers and classmates. They were able to join live lessons, learn, and fully participate in the school community, which was reflected in the higher levels of engagement in online class activities during the second lockdown compared to the first schools' closure.

Building and maintaining positive communication channels and providing emotional support and

advice were one of the main priorities for our schools during the pandemic. The Digital Inclusion devices undoubtedly provided a new and inclusive way of communicating, particularly for families with English as additional language.

The pandemic opened a new path to the education system in Glasgow. Although, it has been a very challenging time for staff, pupils and their families, it has been acknowledged that the pandemic will also have some positive consequences. As discussed with DLOs, schools are considering keeping some solutions implemented as a response to the pandemic. One of the things is online homework submissions which are easier to track. The second positive outcome is a fast pace of digitisation of our schools supported by the Digital Inclusion program.

The pandemic has proven that no one should be left behind and excluded from having access to education, opportunities and development. The Digital inclusion program undoubtedly mitigated some of the digital inequalities in the city and allowed our pupils to remain engaged and connected with the school community and contemporary society.



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Project Contributors

Researched and authored by -
Monika Sajkowska, Information and Research
Assistant

Monika was on placement in Education Services,
Performance, Planning & Research Team, as part
of Jobs & Business Glasgow's "Glasgow's Best"
initiative.

Interviews facilitated by –
Christina MacDonald, Planning & Development
Manager

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If you wish to contact the Research Team about
this report, please email:

PPR@education.glasgow.gov.uk