

SAMSUNG



DIGITAL FAMILIES

Promoting Digital Capability in the Community

Research Findings, 2016

ABOUT THIS RESEARCH

In 2015, Samsung funded a six-month research project on the Isle of Portland in Weymouth, exploring the impact of technology on participants' engagement with community services, schools and family learning.

We partnered with the Centre for Excellence in Media Practice (CEMP) at Bournemouth University, and a full research report is available at: www.samsung.com/uk/citizenship/research. The project has given us a rich set of findings on which to build further work, and we hope this summary will be of help to schools, community organisations, policy makers, employers and even parents – anybody who shares our interest in enabling communities to benefit from the power of digital technology.

Research partners:



BACKGROUND

At Samsung, we want everyone to be able to take advantage of the opportunities offered by a smarter and more connected world. Which is why, since 2013, we have been piloting a unique programme, embedding the Samsung Digital Classroom in the day-to-day teaching of a small number of schools serving deprived communities across the UK.¹

The pilot has provided strong evidence of the potential for technology to support critical 21st century skills. Teachers have given us examples of how the technology has enabled their pupils to be more creative, increased and improved collaboration and encouraged independent learning. Our findings align with research that suggests that using one-to-one mobile technology for learning can make students more determined, optimistic, eager to explore new things, creative and resilient.²

We have been particularly struck by the impact of technology on children with special educational needs (SEN), and by the way some schools have used it to help engage parents in their children's learning. We are also interested in how school-based resources might be exploited to support digital learning in the wider community.

It is these three aspects that we wanted to explore in more depth through the 'Digital Families' project at the Isle of Portland Aldridge Community Academy (IPACA).

¹ For more information on the Digital Classroom, see: <http://www.samsung.com/uk/citizenship/digital-classroom.html>

² Clarke, B., Atkinson, R. & Svanæs, S. (2015) Transforming Learning: Future Skills. How does the use of mobile technology prepare students for future employment? Techknowledge for Schools. <http://techknowledge.org.uk/research/research-reports/future-skills/>

HOW THE DIGITAL FAMILIES PROJECT WORKED

The project was led on the ground by ‘researcher in residence’ Philip Wilkinson. Over a six-month period, ten sample families were given networked mobile devices, offered weekly workshops and given access to the IPACA Digital Classroom. The families selected were on low incomes, had children with SEN attending the school and met other ‘disengagement’ criteria.

Over time, the research developed three key areas of focus:

- engagement in community services and education, particularly for learners with SEN;
- the digital classroom as a focal point for broader community engagement, addressing community needs, digital access and the development of digital literacy;
- and digital inclusion – a particular interest of our local community partners.

We wanted to avoid an overly simplistic approach:

- We took care to focus on what the participants wanted to achieve for themselves through increased digital capability, as well as what motivated the partners involved in running it. We quickly found that these weren’t always the same.
- We took time to understand the highly distinctive nature of Portland, in particular its historic isolation which gives the community a strong sense of ‘otherness’ and suspicion of non-Portlanders.
- We didn’t want our findings to appear to support simplistic notions of technology as ‘good’ or ‘bad’ for education – either a way of engaging young people or a distraction. Rather, we were interested in the complexity of young people’s relationships with mobile technology in different settings and for different purposes, and how it can support a wide spectrum of learning in a range of contexts.

At the same time, our approach to building capability was a positive one rather than one that sought just to ‘plug the gap’. We worked with the definition of capability developed by economist Amartya Sen, who says it’s not just about having resources, but about being able to use those resources to achieve ‘functionings’ that the participants themselves value.

Isle of Portland Aldridge Community Academy (IPACA)

IPACA opened in September 2012, bringing together five local schools to create an ‘all-through’ 3-19 academy.

A “rich digital ethos” is one of its five key principles, making the best use of technology to deliver all aspects of the curriculum. It also aims to provide a space where families and the community can work together, and has a real commitment to students with special needs. Samsung opened its Digital Classroom at IPACA in May 2015, and has been working with Synergy Housing Association and Skills & Learning from Dorset County Council to give it a community-driven purpose.

WHAT WE FOUND

#1 Digital integration projects need to take into account widely differing aims and values

- Schools and community groups mainly want to raise aspirations, increase employability and get children and families more engaged with school and community services.
- The families we worked with, however, mainly wanted to: increase their capacity to act independently and to make their own free choices; overcome their lack of confidence using technology; and understand how technology was being used in their children's learning.

"It's almost like the wall comes down: no, this is what we are and this is what we are going to do. It's sort of breaking through and saying that this is available to you, this is how you can access it and here is the support to do that, and to do that in a community centre is going to be far easier than trying to do that individually at home."

Community Worker

#2 Projects will need to address multiple barriers, with trust a particular issue

- Access to community and specialist services is particularly poor in Portland, but our families lacked confidence in their own abilities to achieve this using the internet.
- Although the area enjoys excellent internet coverage and speeds, residents often can't afford the costs involved and there are few public internet-enabled computers.
- Residents were often reluctant to go into any community building, and going into a school posed a particular problem for those whose educational experience had been negative. Any focus on 'training' risked making this worse.
- Robust safeguarding measures and appropriate levels of security in the school created a further barrier to participation.
- Overall, the community didn't trust provider organisations or 'outsiders' generally, and it took time to address this.

#3 Trust in the venue, workshop leaders and other participants had to be built over a period of time through a range of approaches

- We explicitly made the Digital Classroom a 'third space' between the school and the community.
- The Digital Classroom was designed as an 'agile space', and was well used because learners could work in different areas depending on their activity and preferences. We're now thinking about how the space might be used for non-educational purposes, which also makes it potentially more viable.

- Strong leadership and the right governance are critical to overcome inevitable organisational problems and tensions that arise from multiple groups using the various areas for different purposes at different times. A designated community engagement lead in the school will hopefully help us to manage this more effectively.
- Initial reluctance to get involved was overcome by publicising activities through word of mouth and allowing people to put themselves forward as project participants.
- Simple, unthreatening activities – such as knitting or cooking – created familiarity with the school, and gave the partners an opportunity to introduce themselves gently, ‘soft assess’ people’s needs and signpost other services.
- Free, fun activities that offered immediate rewards – such as quick skill development – drew people in.
- Including children and offering the chance to use really novel technology, such as 3D printers, bolstered initial attendance. However, the most sustainable approach is to focus on easily accessible technology.

#4 Parents want to be ‘digital natives’ like their children, but face particular constraints and anxieties

- Cost is a particular factor: low-income families are often impeded by slower connections and sometimes by only having a single mobile device. Digital capability is undermined if they have to plan ahead to access fast public wi-fi and are interrupted in their use of the device at home. We are particularly keen now to find a sustainable way of giving residents internet access at home, possibly by partnering with social housing providers and telecoms companies.
- Parents are torn between allowing their children to use devices because of their educational value and feeling they have to limit their use. It is not always obvious when learning is taking place, particularly when apps are not explicitly ‘educational’. Making the learning explicit will help parents to start to recognise learning opportunities when they occur.
- Parents envy their children’s ability to pick up and explore technology with confidence. Giving parents an opportunity to develop the same confidence and ‘playful curiosity’ will motivate them to get involved, and is probably best achieved through parent-only workshops.

“Although I manage the SEN, it’s the class teacher who should take responsibility for the children in their class. They really should be part of this whole project – in the planning stages.”

SEN Specialist

- We found that a ‘forum’ approach worked well, with parents sharing their own experiences, recommendations and tips before we moved on to more structured activities. At one parent’s suggestion, we also set up a Facebook group for them.
- Our parents also particularly enjoyed activities that involved working with or producing something with their children – and the children enjoyed it too.

The parents often let their children take the lead, preferring to ask questions and prompt them, which worked well.

#5 Digital technology has great potential to help SEN learners, but only if properly supported

- Digital technology can help SEN learners develop similar skills to their peers and can ‘compensate’ for areas where they struggle, for example ‘speech to text’ apps which can empower poor writers.
- Really effective work with SEN learners will use a combination of digital and non-digital approaches, and might involve both tailored and mainstream apps.
- It is also important to ensure a connection between the support offered by SEN professionals and the practices of teachers and how they teach the curriculum.
- Engaging with existing local SEN practitioners is critical if the benefits are to be maximised. They can help with lesson planning, so that some lessons can be specifically aimed at SEN learners, and even linked to particular needs. They can also identify the potential of mainstream apps to support certain learning needs.
- We found that parents wanted to know how to use technology at home to support learning and act as a ‘leveller’; and they wanted help identifying the best technology to use. There is potential to design resources that provide practical advice for parents on appropriate technology, enable them to continue lessons at home, and to develop their own expertise in supporting their children’s learning.

CONCLUSION

This project focused particularly on developing capabilities such as: social connectivity and social belonging; trust in and rapport with educational professionals; a sense of purpose and achievement related to learning and school success; accessing community services; self-confidence in SEN learners; contribution to the community; increased confidence in using technology for education; and dealing with anxiety around ‘screen time’.

At a more strategic level, we identified clear potential for greater collaboration and partnership between schools and community services, due to a shared interest in developing digital literacy skills in the community. However, if such partnerships are to be effective, there are some critical success indicators that the stakeholders need to achieve:

- Is their work driven by a shared, consistent and sustainable pedagogic rationale – one that is both embraced by teachers and draws on their expertise?
- Is there a consistent, whole-institution commitment to embedding digital initiatives, joining up school, family and community in order to convert ‘digital capital’ into ‘academic capital’ wherever possible?

- Is there a coherent strategy that 'joins up' the use of digital technology in the school, digital learning at home and community engagement?

FUTURE PLANS

Following the original research intervention, the project has gathered support from local schools and community organisations. With this support we are currently developing the digital families activity 'toolkit' and providing training to teachers and community workers to run these activities. This toolkit will be continuously updated in response to feedback from the community; the changing digital inclusion landscape and emergence of new digital technologies. As this project addresses a broader need for meaningful digital inclusion through family learning, we are working to secure further funding to roll out the project on a national scale. Applications for further funding are developed by a consortia of Aster Housing Group, Dorset County Council, Bournemouth University and Samsung UK.

Digital families activity toolkits can be accessed and downloaded via a dedicated website, www.digitallyfamily.com.

Our thanks to the head teacher and staff at IPACA and to colleagues at Skills & Learning and Synergy Housing for their invaluable participation in this project and their on-going support. We would also like to thank the Isle of Portland community, particularly the families who participated in the activities.

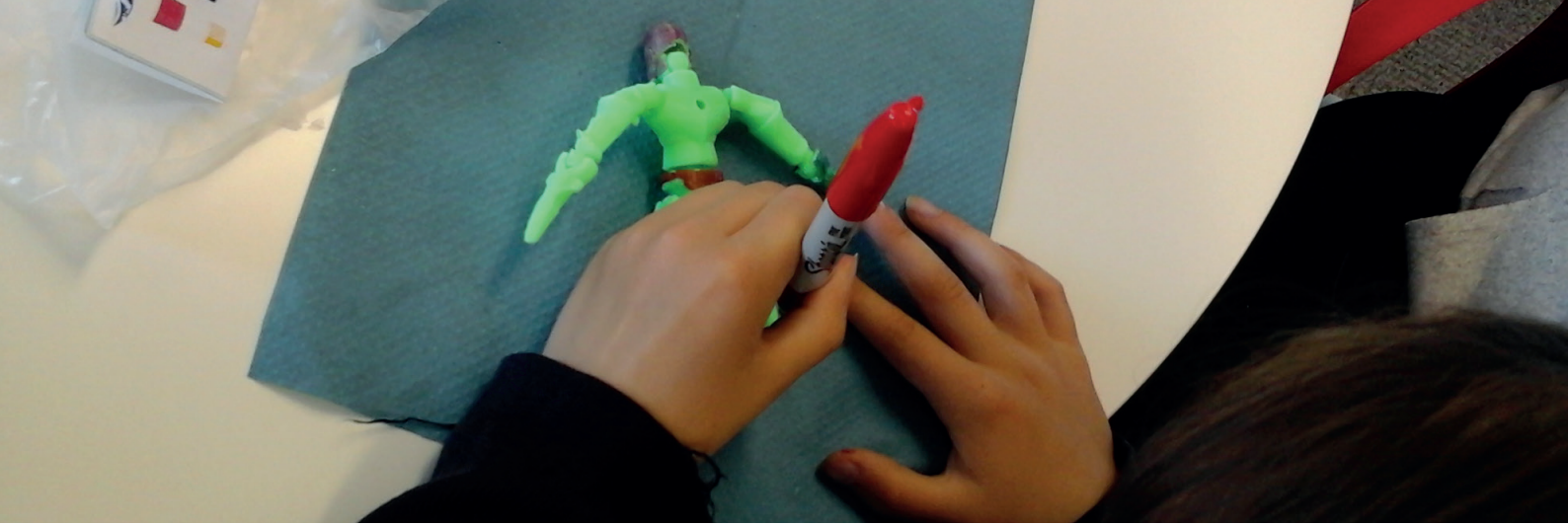


SESSION EXAMPLE: LEARNING WITH VIRTUAL AND AUGMENTED REALITIES

“The intention of this activity was to demonstrate ‘future’ technologies (Virtual and Augmented Reality) in an accessible way. This had the dual purpose of creating a sense of excitement in the Digital Families activity itself, whilst encouraging parents to think about the educational potential of this new technology and their mobile devices. Families taking part were challenged to construct a Google Cardboard headset in the quickest time and then search for apps that could be used. In this searching, parents critically discussed, shared, and evaluated apps based on educational benefits - including apps with no explicit educational design features.”

Philip Wilkinson
Research Engineer at CEMP, Bournemouth University





SESSION EXAMPLE: DESIGNING AND PRINTING 3D ROBOTS

“Through the production of a 3D robot, from virtual to physical, we aimed to engender engagement through novel technologies (3D Printing), create a tangible link between the virtual and real-world, and create a confidence and authority in parents when teaching with technology. In an initial workshop, parents were shown how to design a 3D robot using the tablet app ‘AutoPlay’ such that they could then demonstrate to their children. In the following workshop, as a family, they designed their own 3D robots - developing the children’s visual-spatial reasoning skills. To cement this 3D visual-spatial learning, and to introduce a novel technology, we then used the 3D printers at IPACA to print out their designs and present them packaged as toys.”

Philip Wilkinson
Research Engineer at CEMP, Bournemouth University

