



Denbigh High School

Denbigh High School in Luton, Bedfordshire is an OfSTED Outstanding school and part of the Chiltern Learning Trust Multi Academy Trust. With 1120 students ranging from 11 to 16, they are a high-achieving school with an excellent track record for academic and wider achievement.

Currently the highest performing secondary school in Luton, every area of Denbigh is geared towards maximising teaching effectiveness and driving meaningful outcomes for the young people in their community.

Six years ago, as part of a focus on delivering world class education, the school and Trust decided to appoint a Director of Technology for Learning. The aim of the role was to support staff and pupils with the effective use of technology across the curriculum. Emma Darcy was appointed to the role.

Emma explains: "I support staff in schools to use technology effectively and I also work with headteachers to develop whole school technology for learning strategies."

Typically everything routes back to a few key questions: what are the school's priorities in relation to teaching and learning, what do you need to achieve in terms of outcomes and how can the use of technology support and enhance your aims?"

The right provision

It was this philosophy that led to positive discussions around the increased use of mobile devices in the classroom at Denbigh. There was a desire for teachers to use more digital tools across the curriculum, but as Emma explains, this was not necessarily a straightforward process:

"I was chatting with teachers about the use of mobile technology to support and enhance the learning opportunities across all areas of the curriculum. One of the things that kept coming up was the practicality of moving a class from their classroom base to an ICT Suite.

"If, for example, a teacher was delivering lesson content in Geography and wanted to enhance the learning by adding Google Earth into the equation, then it was understandably impractical to pick up the whole class and walk 10 minutes to the other end of the school to do that."

Coupled with this curriculum challenge, the structural and development limitations of being in a Grade II listed building meant that there were practical restrictions on what was possible in terms of on-site IT infrastructure for the school. This has led to Denbigh rethinking how best to deliver digital access for young people, with a natural leaning towards more mobility in future provisions.

Move to mobile

Following a full audit of the existing learning technologies, and after speaking to support staff, teachers, Senior Leadership Team (SLT) and pupils, two fundamental development priorities were identified.

Firstly, the school moved away from a proprietary learning management system and capitalised on the natural introduction of Google Workspace for Education across the school.

Emma explains: "When we spoke to teachers, they had stopped using the proprietary tools that came with the learning platform we used to have. Instead they were engaging far more with the range of software available through Google Workspace for Education.

"I observed classes starting to use Google Classroom to set homework and using Docs, Slides, Sheets and Forms in new and interesting ways. This wasn't just focused on what would happen inside the four walls of the classroom at Denbigh, this was enterprising teachers and pupils continuing the learning at home supported by parents or carers.

"The Leadership Team saw this as a huge opportunity for us to join the dots and put a structure in place with our own Technology for Learning strategy that would give pupils a consistent experience whether they were learning in school or at home."

Secondly, the school addressed a limiting factor to scaling their use of Google Workspace for Education: new site-wide WiFi with the capacity to host hundreds of new mobile devices.

Meeting the need

With faster, more responsive access to online learning tools and a best-in-class learning ecosystem provided courtesy of Google Workspace for Education, it should have been the time for mobile devices to shine.

But as Emma sets out, that wasn't as straightforward as it may have been:

"In terms of mobile devices, we didn't have the provision we wanted. We had a couple of sets of tablets and laptops across different operating systems, but we were having really positive conversations about where devices were likely to be going generally, and setting out our hypothesis on what the impact might be of those various routes."

After conversations at Leadership Team level, the outcome was agreement to trial a 1:1 programme at Denbigh.

Emma picks up the story: "We wanted to err on the side of caution with such a project. We thought having anytime, anywhere access to a personalised learning device would have a positive impact on the outcomes of our pupils, but you can never be sure. We thought it sensible to run a study with a small cohort and assess that against a control group to see if it was worth creating a whole school technology strategy encompassing 1:1 devices for young people."

Denbigh selected a group of 28 pupils in a single Year 7 class to receive a Chromebook to augment their learning. This decision was made so that they could share in that learning experience together and teachers would be able to deliver lessons for that group knowing that they would all have access to the same mobile device. Pupils collected a Chromebook at the beginning of the school day from the Network Manager's office, and then returned it at the end of the day.

For many of the teachers it was their first time teaching with a Chromebook, so Emma worked closely with them to ensure that they were comfortable in their own use, and also fully aware of how Chromebooks could be applied in a creative way to the relevant areas of the curriculum to help support and enhance outcomes.

For the school, it wasn't enough to go on qualitative findings to conclude their research. They wanted quantifiable data and meaningful insight first-hand from pupils to make an informed decision about the right path for their technology strategy.

Emma explains: "We looked carefully at predicted attainment levels for pupils before and after and saw clear improvement. We were also making a clear positive difference to the lives of our young people. For example, one of our students had no access to technology at home, and the consistent school access to a Chromebook helped them accelerate their learning not just during lessons, but during break time and at lunchtimes as well.

"One early concern was that such a device would have a negative impact on pupils' writing skills. In fact, our study showed the opposite: pupils' writing actually improved as they were able to "draft" their written work on the Chromebook first, check for spelling errors and then copy neatly into books. This improved certain pupils' confidence in writing no end.

"One overwhelming benefit was simply the pace of learning. The students with the Chromebooks had a real velocity to their progress. Compared to the control group that didn't have all day access to a device, the difference was clear.

Following such a positive pilot project, it was time to start planning a comprehensive roll out that could bring the proven benefits to more pupils across the school.

Scaling the study

The next step for the school was to engage with parents to see if they would be willing to support a 1:1 device programme.

Towards the end of the Spring Term 2018, a form went out to parents asking if they would be willing to participate in a 1:1 device purchase programme. After a positive result from the engagement exercise, Denbigh decided to roll out the programme to all pupils in Key Stage 3.

Considering it would be a sizeable roll-out, the school wanted a company who would manage the programme and ensure that running it didn't become a huge admin burden on the school.

Hence, Emma knew that selecting the right partner to support them on their journey would be crucial to the success of their efforts:

"We started engaging with various companies who had a track record in running 1:1 programmes based on the Google ecosystem.

"We wanted a touchscreen Chromebook as pupils and teachers who were part of the trial cohort had reported it gave them additional creativity and flexibility in the classroom. We asked all the companies to quote and Freedom Tech came back offering great value for money and the most compelling service package.

"What we liked about Freedom Tech from the outset was their candid and transparent approach. They didn't always pretend anything was possible, instead they set out clearly the rationale for the services that they were offering, based upon their previous experience in schools. When we compared like-for-like, Freedom Tech offered the most comprehensive programme at the best value."



Roll-out time

When it came to roll-out, Denbigh opted for a staged deployment. Year 8s got their devices at the beginning of the Autumn Term, and Year 7s received theirs later in the same period. Devices were deployed once the school had clearly explained the standards and expectations to staff, pupils and parents.

Emma explains: "Denbigh is situated within a community where quite a large percentage of people speak English as a second language. We had to really think about a way in which we could engage parents so that it was meaningful for them. We chose a blended approach including producing a Parental Handbook that explained clearly how parents could choose whether or not to "opt in" to the programme. We also ran a number of consultation evenings where parents could come in and speak to staff and ask any questions they may have. Parents could then either order a Chromebook with assistance at the school via the online portal or take away instructions on how to do so at home."

"Freedom Tech were very flexible in a number of ways. They allowed either monthly direct debits or one off cash purchases and left plenty of time in the process for us to change our minds and make sure we weren't committing to something that wasn't right for our school." Emma adds.

The deployment was a success, with 168 pupils in Year 7 and 178 in Year 8 receiving an Acer Chromebook.

"We decided on this device as it had a touchscreen and proved to be really robust for use both within the school and at home." Emma says.

Driving an impact

Always operating with a focus on impact and measurement, the school recently surveyed all of the Year 8 pupils. As Emma explains, the results made for very encouraging reading:

"Every single pupil that responded to the survey was using Google Classroom.

We got some amazing feedback from the young people, detailing how the Chromebook had helped with writing skills, online access at home and the consistency of the learning experience.

"We heard some great stories around learning synonyms, researching topics and developing assignments using their research in Google Slides.

"Students were able to self capture the evidence of their own learning, which helped them to journal their progress and also served as indicators of comprehension for the teachers.

"There was interesting evidence of flipped learning, where pupils were consuming course content at home and then using their time in the classroom to work faster and more effectively, minimising the amount of time a teacher would have to spend on explaining core concepts."

Tech for teachers

Denbigh will also be speaking to staff for their perspectives in the new term to evaluate the successes and identify further opportunities for development.

From the conversations that Emma has had with teachers across the school, things seem to be going well:

"We knew with staff we had to get it right. We put 45 teachers through specific CPD pathways on best-practice use of Chromebooks and the Google Workspace for Education platform for a specific reason: we needed to drive the link to outcomes.

"Part of this was to set out the Chromebook Code for pupils and staff and share our philosophy with them. We don't want Chromebooks to be used all the time in lessons, just when they are going to aid the learning experience for our young people. They have become part of the pupils' essential toolkit for the classroom.



Setting the standard

Other schools within the Chiltern Learning Trust MAT are now looking at the work of Denbigh.

Emma expands: "We have a range of schools in different geographical areas and their requirements are all very different. What is consistent across all of them is they want to provide the best education that they can be for the communities that they serve. A 1:1 programme has helped Denbigh immensely."

Things to consider

Emma is now keen to use her experiences to share with other schools or MATs who may be in a similar position as Denbigh was a few years ago:

"Many schools want to do it, but in my experience it's got to be done in the right way. You can't just give out hundreds of Chromebooks without considering the bigger picture. You've got to do the groundwork: get the right foundation of infrastructure and connectivity, learn from small-scale proof-of-concept deployments and take all your stakeholders on the journey.

"It's important to make sure that parents and carers have enough time to make a decision. However long you think it's going to take to engage with parents, it'll take longer. Estimate your time, then double it!"

"It also has to be inclusive. One thing we were very clear on is that no pupil should be disadvantaged, whether they were part of the 1:1 device programme or not. As a school, we have made sure that staff have additional Chromebooks for use in lessons to support those pupils who have not purchased their own.

"Make sure you don't carbon copy what we, or other schools have done. All areas of learning technology and indeed learning as a whole is contextual to the environment, the community being served and the pedagogy. All schools should do such a programme in the style that suits them."



Why Freedom Tech?

When asked why Freedom Tech are her partner of choice for this 1:1 programme, Emma is enthusiastic in her response:

"Their customer care is excellent. As a school we had never done anything like this before, and we had a lot of questions on a daily basis. We were quite demanding at times and the team at Freedom Tech just took it all in their stride.

"Freedom Tech also came in-person to meet with relevant staff at the beginning of the project and then attended one of our parental engagement sessions, spending time with dozens of parents to help answer any questions they had including how to use the portal, how the support worked and the wider process.

"With such a programme, communication is crucial. Our account manager is always extremely responsive to any queries that we have. We're taking the next steps this term to decide how we take things to exciting new levels of achievement."