



Implementing BYOD/BYOT at Warden Park School, Cuckfield

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Summary of context

This well-resourced 11-16 mixed state academy that specialises in mathematics, ICT, modern foreign languages has 1,500 pupils and 120 teachers. The school is highly successful and has a high academic and sporting reputation in the local area. Situated in a privileged South East England rural catchment area there are fewer pupils from minority ethnic groups or requiring free school meals than the national average (4%). The school gained high performing specialist school status in 2009 and acquired additional specialisms in special educational needs and gifted and talented education. Also the school has a resourced unit for up to 18 students with specific learning difficulties and additional learning needs. The school is part of the Warden Park Academy Trust, which also includes a primary school that will develop their ICT strategy in this area based on the results from Warden Park. The school has been following a path to e-confidence over the last 6 years and has made rapid progress. There is a very active 650-seat network and their Moodle e-learning system is the most active in the West Sussex schools area.

The Director of E-Learning said, "We pride ourselves as being a large school that is run on a human scale. We have various successful initiatives running at the school such as lead status in local G&T provision, Gold Standard Marks for CPD and Leading Edge status. We have grown tremendously with regards to ICT use over the last 4 years and we are a Microsoft Academy providing vendor examinations for all of our staff, students and community".

Overview of the school

This well-resourced 11-16 mixed academy of 1,500 pupils and 120 teachers specializes in mathematics, ICT, modern foreign languages and sports. In a privileged South East England rural catchment area there are fewer problem pupils than the national average (Figure One). Gaining high performing specialist school status in 2009 the school also specializes in special educational needs and gifted and talented education.

ICT infrastructure and resources

This school benefits from a well-staffed and well-run Digital Resources Centre including a technician and three dedicated teaching staff. The school is well resourced with 650 machines and devices (Figure Two). Most classrooms have a computer and display equipment supplied by a continuing equipment refreshment program. A sophisticated combination of in-site and off-site network support ensures network reliability. In addition a high-density wifi Meraki Cloud managed network spreads across most of the school site.

As a result of a careful product selection procedure with staff and governors the school has purchased approximately 110 iPad 2 devices for the Pilot. These devices make up two class sets of 32 and also a pilot staff group of over 32 teachers (Figure Three).

Overview of work/activity/project

The project benefits from the oversight of a SLT strategist, Director of E-Learning, who is outstanding in computing knowledge, in relating systemic change to pedagogical gain and a talent for communication to staff and pupils. He updates his Masters in Knowledge and Learning Technology by belonging to online professional communities. As a result of his infrastructure decision-making power the BYOD/BYOT project is one element in landscape of change to meet the challenges of the 21st century.

Those piloting new uses of digital technologies are striving not only to improve motivation but also to establish independent learning and a sense of ownership of the learning agenda (Figure Four). Underpinning these aims are infrastructure decisions like moving to the Cloud using Google solutions are designed to reduce the volume of printing and replace with digital copy or e-learning materials as well as improving work flows. This strategy leverages 5Gb of free personal storage space **for each teacher and pupil.**

The choice of Apple as a strategic partner in mobile devices reflects the prodigious Apps development and the support of the company for education – as well as an element of ‘cool’ that motivates staff and pupils. The availability of free content in iTunes App store is another benefit: staff authors are already publishing their curriculum e-books as well. The 32 staff iPads have a suite of Apps preloaded that includes curriculum support and a product that permits the use of SIMS on mobile devices including marking class registers and logging behaviour on the go (234). Sophisticated plans for 1:1 computing devices and universal wifi access that includes support for disadvantaged families have already been introduced to parents and staff to inform their purchasing decisions and to avoid a plethora of incompatible devices arriving in school after Christmas.

Impact

Impact on staff

There have been no open complaints about the pilot overall although usual concerns have been expressed like students forgetting or losing the device. The 32 staff with the first iPads

are including pedagogy in their deliberations about the value of these devices. So far motivating reluctant learners, facilitating promoting pride in presentation and encouraging creativity are emerging as outcomes. A well-organized trials plan was communicated in an engaging way to parents who are invited to discuss the results with their children.

Subjects where interesting practice is emerging are: PE, Information and Communications Technology and Geography. In History a comic strip designer and book creator apps 'engaged the student's creativity whilst keeping them focused on the content of the curriculum. This helped students who are visual learners to remember key terms and concepts more readily.' (Figures Five and Six). The development of videos about enzymes in Science was motivating for SEN pupils (Figures Seven and Eight).

SEN pupils and students with behavioural problems responded particularly well to the use of iPads as a personal tool.



Science: Using the iPad to make a video about the action of enzymes using paper props was motivating for Special Needs students

Teachers view positively the move to use these tools in personal administrative tasks: for example registration and email on the move; note taking; and, resource collection.

Impact on the school/organisation

The results of the first pilot will be used to make agreed alterations to policies on teaching and learning, appropriate use and e-safety policy.

Impact on pupils

Data is still being collected on the impact, but we are having to extend the project to Year 10 because of parental and student pressure. "SEN pupils and students with behavioural problems have responded particularly well to the use of iPads as a personal tool".

Pupil reporters for the school news stream have found the job easier and pupils in the focus group welcomed opportunities to help the teachers (Figure Nine).

Key Lessons Learnt

Research is essential if a project that promotes change is to succeed. The viability of the plan was researched over a year and a half by investigating research papers, videos, forum discussions supplier demos, exhibition show products, the E-learning foundation, technology conferences and visits to schools where similar programs have been implemented.

The iPads pilot fits into a long-term strategy to put more responsibility in the hand of the pupils for learning. Ownership of the iPad has meant that each teacher also experiences more ownership over changing practice from the classroom perspective.

Do not underestimate the emergence of technical issues as the project progresses and allow time to sort these out and orientate the technical team to be able to work with new technology in new ways.

Communicate sympathetically with parents and staff members who are concerned about league tables and academic rigour. The current assessment environment does not encourage the changes in teaching and learning that are pursued in this project.

Debate the wider and broader aims of education within the staff because at some point the whole staff will want to consider whether they are willing to adjust the theoretical underpinning that informs their professional life and adjust school policies on teaching and learning.

Additional: suggest key questions that now need to be investigated

- How does the use of personal hotspots by pupils affect responsible use in the school?
- What are the methods for engaging and motivating reluctant teachers to consider changes in their practice?
- What level of on-going support is needed: teacher pedagogical support, technical, student skills etc.
- What should be the balance between informal and formal CPD for teachers?
- How much should the teachers know about pedagogical theory in this area?
- What theories of project management are applicable in this school?