



Implementing BYOD/BYOT at Forest School, Walthamstow

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Summary of context

In 2013 at Forest the foundations of a new building will be laid that will include a Digital Learning Centre. The school development plan for the next five years that takes this new development into account has made embracing, using and becoming a leading developer in the use of modern technologies in the classroom a key aim.

The school is already well equipped with approximately 900 PC's and laptops. Each classroom has a PC for the teacher, and staff room PCs ensure 1:1 pc/staff ratio. 123 staff laptops previously owned by the school have been transferred to staff who can use them as own devices now. PCs for pupils are concentrated in 8 venues, 2 of which are PC classrooms with 28 PC's each, the library with approximately 28, and the 6th form Centre with another 30. The other 4 classroom venues have 12 PC's per classroom, and then there are a number of laptop trolleys, each with 30 laptops. A language laboratory and music classrooms account for another 50 PC's. Overall PC: pupil ratio is approximately 1:2.

"A range of decisions have been made to support the school development plan that are designed to increase the BYOD and BYOT opportunities for pupils and staff. These are:

1. We have recently established a comprehensive responsible use policy.
2. This year a new wi-fi network has been established. It is available to all staff and the sixth form- experimentally. The aim is to roll this out for all students.
3. There is an e-learning forum that includes real-time meetings and some subject on-line forums developing the use of new technologies.
4. However there are laptops available to book and the school has many computers available in various classrooms.
5. A classroom has been re-furbished recently with a flip-over desk arrangement so that it can function as a traditional room or be a classroom of 24 desk top computers fully linked to the intra and intranet.
6. There is a burgeoning intranet that is used for both administration, registration and for educational resources and communication.
7. In the sixth form centre collaborative working tables have just been installed where students can plug in their devices and work collaboratively on projects.

8. Audio visual suites have been adapted with Apple tv in some halls as well as all meeting rooms.
9. School library is on line with access to other online services like J-Store that staff can use for ordering journals and books.

Overview of the school

This is a selective fee-paying mixed London school with 1200 pupils from 4 to 18 accepts SEN children and offers scholarships. In a beautiful forest setting the historic school offers a broad curriculum in Sport, Music, Drama and Visual Arts as well as extra curricula activities enabling both breadth and depth of opportunity (Figures One and Two).

ICT infrastructure and resources

The ratio of staff to pcs is 1:1 and for students to pcs 1:2 with good technical support; 8 computer suites and computers and IWBs in each classroom; Apple tv and large screens in main halls and meeting rooms :



Collaborative working desks with iPad connections and Apple tv in the 6th form centre, meeting rooms and assembly halls

The intranet is widely used by staff and students. Wifi now available to staff and sixth form will soon be available to all.

A new Digital Learning Centre is planned to be the corner stone of a knowledge community by 2013/2014. Currently 6th Form facilities upgraded to include collaboration desks/shareable screens and charging stations in a collaboration area (Figures Four and Five). 32 staff applied for a discount on iPads and workshops. 123 staff have laptops from school and, in effect, enjoy 1:1 computing if they wish.

Overview of work/activity/project

The SLT decided to implement BYOD/BYOT cautiously in the sixth form, with low impact and attendant risk as part of the move to the new Digital Learning Centre in 2013/14 – a hybrid educator-librarian for transmedia development is now required to work with the architect. Meanwhile a strategic BYOD/BYOT planning process with SLT was based on a survey of devices owned by parents and pupils and other research. Voluntary involvement for pupils and teachers was agreed in the first stage especially as the market for devices is in flux. The Network Support team investigated wireless access and security options in other settings.

The pilot was intended to find a way of introducing more independent learning in preparation for greater freedom in tertiary education. The SLT also wanted to explore other potential teaching and learning opportunities, constraints and challenges. An ICT strategist with a Masters in Business Administration specialising in the systemic integration of social and technical processes in organisations is employed to run the wider project with the director of teaching and learning.

In the pilot of BYOD/BYOT 32 staff have trialled sets of discounted iPads in the Prep School, in Modern Foreign Languages, Music, Computer Science and Geography. Observation and informal workshop sessions suggest staff see advantages in administration, personal organisation and lesson preparation, but learning and teaching advantages are not as apparent yet. Pupils report in journals easier internet research, better opportunities for collaboration on projects and excellent facilities for viewing each others' work in progress. Knowledge is growing because the pupils and the teachers have been sharing ideas for software relevant to learning, particularly Apps for education.

Impact

The project has deliberately been started slowly in the Sixth form (Figure Seven) because the risks to be avoided from the **organisational point of view** were:

- A sudden influx of new devices might be too challenging for teachers;
- Too sudden introduction of devices might place strain on networks;
- Theft and loss of devices might occur and appropriate use codes be abused.

Financial advantage can be gauged from a Computer Science example. The department can now afford for each student to work on their choice of computer language using a free or very low cost app. In contrast a licence for each language for the school network would be about £1,500 so only one could be offered.

The impact on pupils has been greater below the sixth form where they lobbied to be involved. The journals and concept maps submitted indicate a depth, sophistication and level of use of devices that many teachers would find surprising (Figures Eight, Nine, Ten and Eleven). Personal organisation and research was a major benefit, but distraction in class was a concern of the digital leaders.

From the point of view of staff, the barriers or obstacles that are being addressed are:

- Teachers' fears of lack of control or impact on discipline: as a result teachers can decide at any time whether devices are to be used in class, or not.

- Teachers' feeling overwhelmed: for this reason BYOD was initially limited to 6th form and there is still no enforced curriculum use.

Two teachers mentioned particular impacts. A MFL teacher was disturbed by inappropriate exchanges from students abroad in a class project.

Another teacher with a Masters in digital technologies and learning who updates his knowledge by belonging to an online teachers' community, has been examining his own classroom practice in detail using iPads. He thinks that the potential impact of BYOD/BYOT in facilitating collaborative learning could be as great as the expected impact on independent learning. Ultimately he supports a shift to Flipped Classrooms and suggests an action research programme for staff might increase the opportunities to rethink the school's teaching and learning policies. Current assessment is a major barrier, however, in an academically orientated school.

Key lessons learnt

Overall key lessons from the pilot are:

- All teachers must be acquainted with the Code of Conduct that pupils' must sign if working online;
- While pupils are comfortable using personal devices in the other aspects of their lives, they appear to struggle a little with integrating this into school/learning;
- Flexible environments are important in making it easy and workable to have and manage own devices in and between classrooms;
- More public communication with pupils and parents in the next stage to ensure their enthusiasm.

In addition most of the recommendations related to the encouragement and training of the teachers so that they can support pupils effectively in using technology under their guidance. The pupil focus group agreed that some teachers in the pilot were not aware that time-wasting activities were happening. More teachers need appropriate strategies to deal with these behaviours including getting control early and moving around the classroom. The pupil focus group also thought that there should be more acknowledgement at the start of the next stage of tech-savvy pupils who are keen to be a resource for staff and pupils.

Overall training about the technicalities should be balanced in the next stage by more formal training about classroom management and pedagogical advantage. Some teachers wanted to start action research on the pedagogical value of the devices that are still to be discovered.